

# A History of PAMOUR PORCUPINE MINES LIMITED

*and  
Aund Gold  
Mines Ltd*

Unlike the spectacular finding of native silver at Cobalt in 1904, the prospect of gold in the Porcupine had been predicted by the Ontario Government geologists before the turn of the century. Claims had been staked at Night Hawk Lake between 1901 and 1909. Harry Preston, working for Jack Wilson, discovered the first major gold mine near Porcupine Lake in 1909. It was the famous Dome Mine which began operations in 1910 and is still producing gold today. Benny Hollinger and Alec Gillies discovered the Hollinger Mine a few months later in Tisdale Township, only 3 miles to the west. It went into production in 1912 and finally ceased operations in 1968. At the same time, in 1909, Sandy McIntyre found the McIntyre Mine just north of the Hollinger. It went into production in 1911, was purchased by Pamour Porcupine Mines in 1973 and the mine is still operating.

These important developments in 1909 led to massive staking of claims in the entire area. Prospectors eagerly followed the Dome syncline to the east. A group of claims was staked about 7 miles east of the Dome near Three Nations Lake by A. C. Brown. He sold them the next year for a quick profit to Firman La Palme and D. Barsalou. They in turn in 1911 sold the property to J. C. Stevenson of Cobalt who sold a 75% interest to the La Palme Syndicate. William Meen of Toronto was a continuing member of the syndicate. They did some stripping, dug several pits, one 65 ft deep, and the results encouraged them to form La Palme Porcupine Mines Ltd. in July 1911. It was capitalized at 2 million shares at \$1 par value and 1.3 million shares were issued. The stock was listed on the Standard Exchange, Toronto but at that time the financing of junior gold mines was difficult.

In 1910, the Three Nations Mining Co. Ltd. of Montreal acquired a contiguous group of claims. They sank a small 200 ft shaft on the contact of conglomerate and greenstone and ran a drift towards the La Palme property, following a NE-SW narrow quartz vein. After the War, in 1919, due to non-performance of assessment work, the Township of Whitney repossessed and sold these Three Nations claims to Wilfrid D'Amour.

The disastrous Porcupine bush fire occurred in July 1911. South Porcupine, two other small settlements and part of Golden City were wiped out. The Temiskaming and Northern Ontario Railway's 31 mile branch line from Porquis Junction to Timmins was under construction and had reached South Porcupine. At the height of the fire, a freight car containing 350 cases of dynamite exploded. Fortunately, this killed no one but over 70 people lost their lives in the fire or were drowned in Porcupine Lake. Fifteen people who took refuge in a shaft at West Dome Lake mine were suffocated as the fire sucked out all the oxygen.



R. M. Macaulay

## THE EARLY OPTIONS

The Porcupine Grande Mining Co. took options in 1929 on both the La Palme and Three Nations properties. Using the small shaft previously sunk on the latter, they followed an interesting No. 2 vein for 125 ft on both the 125 ft and 200 ft levels. They then set up a 100 ton stamp mill with a ball mill and produced some gold, but the market crashed, they ran out of funds and the options were not sustained.

In 1931, the Arcturus Gold Mining Syndicate took an option on the La Palme property and sent 10 tons of ore to the Temiskaming Testing Laboratory at Cobalt. In 1932, Arcturus was considering a deal involving both the La Palme and the Three Nations properties with the construction of a mill, but they found no backers.

After Porcupine Grande and Arcturus gave up, another promotion "Allied Porcupine Co." took up the options on the La Palme and Three Nations ground plus three other areas, 709 acres in all. It did little work and the depression caused them to quickly give up. Coniagas Mines Ltd., with operations in Cobalt and active in exploration, took on these options, drilled 9 shallow holes and quickly departed. The next examiner, big Consolidated Mining and Smelting Co. of Trail, B.C. became interested and did a fair amount of work in 1933, but they also abandoned it. Their Exploration Manager for Eastern Canada, Rupert M. Macaulay (1884-1960), who graduated from McGill University in 1907, had worked six years for the International Nickel Co. before joining the Consolidated Mining & Smelting Co. (Cominco) in British Columbia. His assistant was C. Douglas Stevenson (1903-1972), a graduate of the University of British Columbia. They were both very disappointed with Cominco's decision and anxious to do more drilling and underground exploration work on the property.



## QUEBEC GOLD MINING CORP.

Macaulay knew Lt. Col. Gustave Rainville (1894-1956) in Montreal, the President of Quebec Gold Mining Corp. which was incorporated in 1932. It operated a 150 ton per day gold mine in Northwestern Quebec known as The Bussieres Mining Co. which had been acquired from the Treadwell-Yukon Corp. Rainville was impressed with the enthusiasm of Macaulay and Stevenson in regard to the property, but Quebec Gold was not in any strong financial position.

## THE NEW COMPANY

The price of gold had risen from \$20.67 U.S. per oz to \$23.50 Canadian in 1932 due to the 12% discount on the Canadian dollar but by 1933, it was moving back towards par with the U.S. dollar. Then London's abandonment of the Gold Standard, the effects of inflation, the mistrust of paper currencies and the continuing depression in the U.S.A. led President Roosevelt to announce, on January 31, 1934, that the U.S. dollar was fixed at 59.06% of its former value and the U.S. Treasury would purchase domestic and foreign mined gold at \$35 per oz. This, of course, attracted new attention to gold mining and Rainville recognized the opportunities for Macaulay's mining claims in Porcupine. He decided to form a new company.

Pamour Porcupine Mines Ltd. was incorporated in Montreal in 1934 under a Federal charter with a capital of 3.5 million npv shares. The name Pamour was derived from the names of the two prospectors: Firman La Palme and Wilfrid D'Amour.

The Quebec Gold Mining Corp. entered into three option agreements with La Palme Porcupine Mines Ltd., Wilfrid D'Amour and D'Arcy D. Bogue. These involved respectively 470,000, 610,000 and 250,000, a total of 1,330,000 shares of Pamour, valued at 5¢ per share, for mining rights on some 800 acres in Whitney Township. Quebec Gold acquired two adjacent claims from J. J. Boland for 170,000 Pamour shares at 5¢ per share. The remaining 2 million shares were available to Quebec Gold at 50¢ per share. Some of these shares were sold to Messmore Kendall of New York and to J. R. Timmins of Montreal.

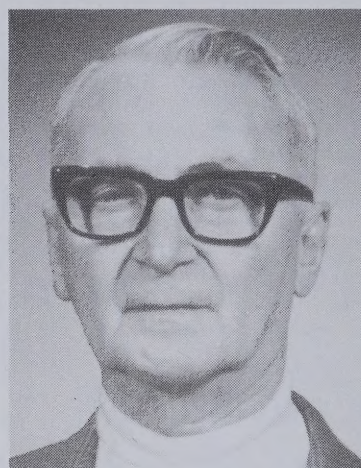
Rainville was President of the new company and the Directorate in 1934 was as follows:

G. H. Rainville	—	Montreal
Messmore Kendall	—	New York
William Meen	—	Toronto
August D'Amour	—	Ottawa
Paul Gelinas	—	Montreal
R. M. Macaulay	—	Vice President
Ayme Lafontaine	—	Secretary

## NORANDA MINES ENTERS

At this point, Oliver Hall (1880-1954), Noranda's Consulting Engineer and Dr. A. M. Bell (1906-),

Noranda's Exploration Geologist became interested in the property. They proposed that James Y. Murdoch (1890-1962), the President of Noranda have a chat with Col. Rainville.



C. D. Stevenson

In April 1935, Quebec Gold entered into an agreement with Noranda for financing the development of the Pamour mine and bringing it into production with a 500 ton mill under a management contract. Pamour's capital was increased from 3.5 million to 5 million shares. Of the latter, 725,000 shares remained in the hands of the vendors. Noranda acquired 1.9 million shares for \$1.14 million or 60.5¢ per share and advanced \$218,000 for construction and mine development, to be repaid out of first earnings. Noranda also bought 150,000 shares of Quebec Gold at 50¢ per share to help the latter's financing.

Quebec Gold offered 3 Pamour shares at 75¢ per share to its shareholders for each 20 Quebec Gold shares held. Noranda obtained a further 250,000 Pamour shares in this manner. It also bought Pamour shares on the market to bring its holding to 2,300,000 shares or 46%.

Murdoch was elected President, Rainville became Vice President and the Pamour Directorate in 1935 was as follows:

J. Y. Murdoch	—	Toronto
G. H. Rainville	—	Montreal
J. R. Timmins (1888-1971)	—	Montreal
Messmore Kendall	—	New York
William Meen	—	Toronto
Ernest Hibbert (1879-1948)	—	Toronto
T. N. Hay (1892-1940)	—	Secretary

Macaulay was appointed General Manager, C. D. Stevenson was Chief Engineer and C. Earle Anderson (1897-1974) from Noranda was Mine Superintendent. Dr. Peter Price, acting from the mine office at Noranda, Quebec, played an important role as Consulting Geologist. The gold occurred in two different formations. The higher grade ore was in narrow veins in the lava material and the lower grade ore was in conglomerate rock of 60 ft or more in width.



The shares were listed on the Toronto Stock Exchange in 1935 and traded at \$3.65 per share. Pamour purchased nine contiguous mining claims from Frank Evans and Charles McInnis of South Porcupine, also one claim from Bert W. Lang, the President of Broulan Mines. This extended the property to 1260 acres.

Macaulay reported that diamond drilling had indicated 1,475,000 tons of 0.26 oz ore and that underground work as of November 1935 had proved up 671,000 tons averaging 0.245 ozs. A further 323,000 tons were then opened up on the 200 ft level and the 400 ft level was ready for mining when needed.



G. H. Rainville

## CONSTRUCTION AND PRODUCTION

In 1935, a new five compartment #3 production shaft was sunk 1100 ft east of the No. 2 exploration shaft and construction begun on the new mining plant and a 500 ton mill, designed by C. G. McLachlan (1896-) at Noranda. The mill building was made large enough for double this capacity. McLachlan's mill which was in operation in May 1936, and early in the next year was treating 700 tons per day. T. R. Wearing (1905-) was the Mill Superintendent; A. W. Bromley (1901-1958) was Plant Engineer; and S. D. Cooke (1904-), Chief Accountant — all very competent men from Noranda, Quebec.

Three Nations Lake not only provided water and recreation, but a splendid shoreline area at the northeast corner for a few houses to accommodate key personnel. A bus service was available to transport others to and from Timmins, South Porcupine, Golden City and points in between.

An important piece of incentive legislation was passed in May 1936 which provided that any new Canadian mine became free of income tax for its first three years of production. This imaginative and helpful incentive ceased to apply to any new mine after November 1969. A net profit of \$157,000 was earned in 1936 and \$625,000 in 1937 (see page 17).

The Mill capacity was doubled by installing additional equipment in the original building and in 1938, it averaged 1410 tons per day. East-west

development drifts on the 200 ft level extended two-thirds of a mile on either side of the #3 shaft. The fourth level drift to the west was half way towards the Hallnor shaft, some 1¼ miles west of Pamour #3 shaft, which then was down to a depth of 2100 ft with a crusher station at 1700 ft.

Pamour reserves at the end of 1938 were 1,750,000 tons averaging 0.16 oz gold or \$5.60 per ton with gold at \$35.20 Cdn. Operating costs in 1938 were \$2.82 per ton, including \$1.04 for development work, and the net profit was \$1.4 million from which an initial dividend of 12¢ per share, or \$600,000, was paid. The use of large mine cars with adequate loading and dumping facilities, introduced by Anderson, was a factor in achieving low costs.

## THE WAR PERIOD

At the Annual Meeting in April 1939, there was great apprehension about Germany revoking the Munich Agreement and seizing what was left of Czechoslovakia while Italy invaded Albania, and the U.K. stood by its pledge in regard to Poland. Canada was at war in September and miners began to enlist.

Rupert Macaulay, at age 54, resigned and Earle Anderson was appointed Manager. The ore reserves held up, but the grade fell off to an average of 0.13 oz (\$4.58) per ton. Pamour was definitely a low grade mine and the recovered value of ore milled fell from \$6.43 in 1938 to \$4.37 in 1939. However, operating costs were reduced to \$2.68 per ton, including 96¢ for development work. Earnings were down to \$675,000 from which \$600,000 was again paid out in dividends. The stock was trading at \$2 per share.

Pamour's three year exemption from Federal Income Tax was deemed to commence on November 16, 1936. Provincial taxes to the end of 1939 amounted to \$135,600 while total income and production taxes in the year 1940 amounted to \$253,700. This figure also included wartime Excess Profits Tax. In addition to the heavy taxation, the average grade of the ore reserves declined to 0.119 oz by the end of 1940.

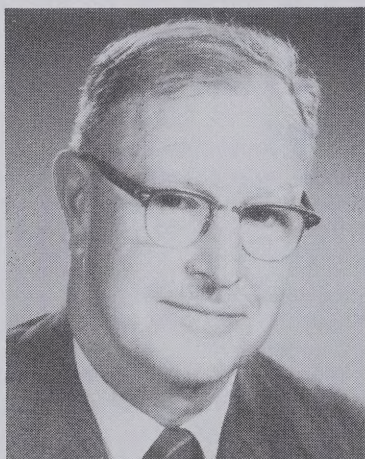
A note of interest was the sale by Rupert Macaulay of 181,000 shares of Quebec Gold to Noranda for \$72,000. There were 4600 Pamour shareholders in Canada owning 94% of the shares outstanding. The company stood 7th in the list of gold producers in Ontario. Noranda's Horne mine was then the third largest gold producer in Canada.

On January 1, 1940 the mines in the area began paying a war bonus of 21¢ per shift to all employees regardless of rates of pay. There were 490 on the Pamour payroll. A Group Life, Sickness & Accident protection plan was instituted. This provided for \$1000 free insurance and the company matched contributions made by employees to a personal savings plan. By the end of 1940, 38 Pamour men had enlisted and half of these had gone overseas.



William Meen of Toronto, one of the original Directors, who had been associated with the property since 1911, died early in 1942. The Directors then were:

J. Y. Murdoch	— President
G. H. Rainville	— Vice President
Messmore Kendal	— New York
J. R. Timmins	— Montreal
L. H. Timmins	— Montreal
Hon. J. E. Perrault	— Montreal
Oliver Hall	— Toronto



Dr. A. M. Bell

Underground development in 1941, at both the west and east ends of the property, gave promise of substantial tonnages of low grade ore. However, the shortage of labour due to the war became more and more difficult and development expenditures were reduced to only 43¢ per ton in 1942.

Ore reserves were 1.7 million tons averaging 0.113 oz per ton. The reduced costs enabled a profit of \$538,000 in 1942 and dividends of \$400,000, or 8¢ per share, were paid. Working capital stood at \$1.93 million. By the year end, 1250 tons were being treated per day with only 156 men employed. This compared with 164 enlisted, of whom 36 were serving overseas. British and U.S. forces had landed in North Africa.

As the war progressed, Canada's gold production, sold for U.S. dollars, became very important to the war effort and the country's economy. The average grade of ore treated in 1943 had a value of \$4.08. The small higher grade ore zones to the west proved less productive to mine at the time due to the numerous faults and alterations, the dimensions of the ore occurrences and the manpower situation. However, earnings in 1943 were \$622,000, or 12.45¢ per share, largely due to cessation of development work and the fact that the mine was "living off its fat." This, of course, resulted in higher taxes. Year-end broken ore reserves were reduced to 460,000 tons of 0.096 oz grade after milling 525,500 tons in 1943.

The employees of 12 mining companies in the Porcupine camp appointed the International Mine, Mill and Smelter Workers' Union as their collective bargaining representative in December 1944. Earnings for the year were down to 7.45¢ per share and the stock was selling at \$1.80. The mill was treating only 1290 tons per day of 0.096 oz ore. Operating costs were up 13% over 1943 and amounted to \$2.45 per ton in 1945. Depreciation and taxes added 67¢, making a total of \$3.12 compared with a recovered value of \$3.50 per ton. Pamour stock was trading at \$1.80 per share.

## THE REAL HONOUR ROLL

### Pamour Employees Killed in Action

C. H. Byrd	E. Meyers
D. J. Carmichael	F. J. Sheculski
Lester Cudmore	W. S. Veitch
J. R. Depencier	J. Vikstrom
Harry Lloyd	P. S. Waugh
Rennie A. MacDonald	O. Wright
L. W. McChesnie	

### Employees Who Served Overseas

John W. Austin	Frank C. McChesnie
James Bell	Kenneth N. McCormack
Thomas W. Blachie	Cyril McGee
John E. Bint	Norman S. McLellan
Gilbert Bowness	Kenneth McMillan
William G. Brough	David Meiklejohn
Jack Burger	Harold F. Murphy
Vernon H. Casselman	Daniel O'Connell
Clarence S. Chevrier	Trueman A. Patriquin
Thomas Cox	Eric B. Pearson
Edward Crytes	Arthur J. Powell, DSM
Glen R. Cudmore	Kenneth Reynolds
James L. Dandy	John Richardson
George W. R. Dey	Cecil E. Rollins
James T. Farrell	Robert G. Rudolf
R. D. Forster	Andrew Sarafincian
August B. Gibbs	Russell K. Seers
Walter J. Gigg	Lloyd M. Smith
Allan Gorman	Clare Sowden
George F. Greenacre	Leo Steimer
Reginald M. Heis	John S. Stephens
Harvey R. Hopkins	Nelson E. Therrien
Douglas H. Horner	Dirk Van Den Berg
Carl Hortie	Albert G. Vance
Sigurd Isaacson	Roy A. Waugh
Robert A. Kyle	Arthur Waynar
Nelson LePage	James H. Young

## POST-WAR ADJUSTMENTS

Earnings in 1945 were \$263,000, chiefly from income on investments in Dominion of Canada bonds. Dividends of \$250,000, or 5¢ per share, were paid and Pamour stock fluctuated between \$2.46 and \$1.19 on

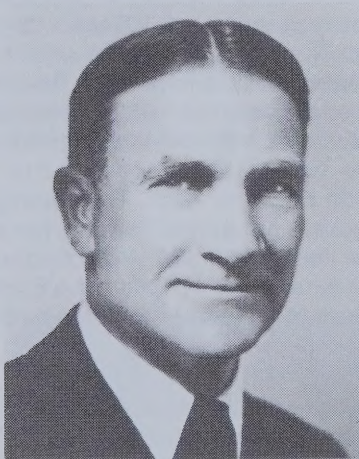


the Toronto Stock Exchange. President Murdoch pointed out at the Annual Meeting in 1946 that the demands of the Mine, Mill and Smelter Workers' Union would have meant increased operating costs of \$1.22 per ton. The average wage per man underground, apart from bonuses, in 1945 was \$6.73 per shift which then ranked among the highest in Canada. This was increased 10¢ per hour.

In mid-1946, the value of the gold recovered was reduced to \$3.20 per ton when the Canadian dollar was raised from just over 90¢ U.S. to parity with the U.S. dollar and the Ontario Government increased its mining duties. The Province then replaced the 50¢ per ton milling allowance by 7% of the capital cost of the mill, which helped a bit. However, Ontario then proceeded to double the tax on income from mines and disallowed the deduction of Federal taxes, offsetting a reduction in the latter, which was very discouraging.

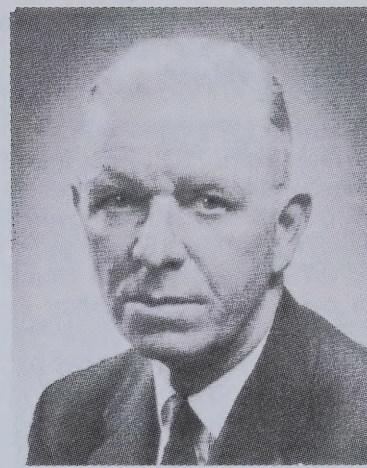
An internal #4 shaft was sunk at the west end of the property from the 600 ft to the 1400 ft level. In 1946, 66,000 tons of ore from the neighbouring property of Hoyle Gold Mines Ltd. were treated on a custom basis. Douglas Stevenson resigned to become Manager of the Cariboo Gold Quartz mine in British Columbia in which Noranda and Quebec Gold had minority interests at the time.

With value of gold reduced to \$35.09 Cdn. per oz due to the rate of exchange and with mounting costs of production, Pamour sustained a loss of \$24,000 in 1947. However, the company was in a fair financial position with \$3 million working capital. A "cost-of-living" bonus of 7¢ per hour was paid to the employees commencing January 1, 1948.



Oliver Hall

Earle Anderson, who had been a top hockey player at McGill University, took a great interest in establishing sport facilities at Pamour. The auditors had trouble determining the proper costs of these items which seemed to be well concealed in the books. Jim Murdoch was an encouraging accomplice and donated the Murdoch Curling Trophy which is still annually contested by curlers from Noranda Group operations in Northeast Ontario and Northwest Quebec.



C. E. Anderson

### EMERGENCY GOLD MINING ASSISTANCE ACT

In June 1948, the Federal Government passed an Act providing emergency cost allowances to assist Canadian gold mines to meet the increasing costs of production, while the fixed price for the product, unlike other metals, had declined from \$38.50 to \$35 per oz because of the stronger Canadian dollar. It was designed primarily to assist marginal gold mines through a difficult period and thereby to maintain their dependent communities. It was expected that the emergency would be of fairly short duration. It displayed a responsible attitude on the part of Federal Government officials of that time.

Pamour was using up ore reserves just to keep its organization together. In 1948, it earned one-third of a cent per share after the loss in 1947 and the stock was selling at \$1.20 per share. J. H. Stovel (1911-), who had been Mine Superintendent at Hallnor Mines prior to the war, succeeded Earle Anderson as Manager. The latter became Manager of Noranda Mines' operations at Noranda, Quebec. The Hon. J. E. Perrault (1863-1948), a Director of Noranda and a Pamour Director since 1938, died at age 85. H. L. Roscoe (1885-1962), Vice President of Noranda, later succeeded him on the Board.

The basic problems for gold mines stemmed from the ill-conceived Bretton Woods agreement which ignored the intrinsic value of gold, except for international settlements, and set up the International Monetary Fund to peg all major paper currencies. The United States Government became obsessed with its policy of denying gold as a monetary metal. Regardless of eventual consequences, it was determined not to assist in any way the two principal gold producing countries: South Africa and the USSR. A balance of payments crisis in the U.K., as a consequence of the war, led to the devaluation of sterling. This, plus the weakness of other major currencies and the improvement in American industry, led to the establishment of the U.S. dollar as the generally accepted medium for foreign exchange. The dangers that lie with international monetary manage-



ment are that recommendations from business to government, if utilized, are apt to come under the influence of political policies.

The neighbouring Hoyle mine ceased operations in January 1949 and Pamour had more men available to work on the west end of the property where the grade was higher but productivity was lower due to the irregular altered formations. Earnings in 1949 were \$486,000, or 9.73¢ per share, of which \$292,000 before taxes came from Emergency Gold Mining Assistance (EGMA) cost allowance credits. Costs after EGMA amounted to \$34.38 per oz. It was the best year since 1943 and a 7¢ dividend was paid: the first since 1946. The Foreign Exchange Control Board cut the Canadian dollar back to 91¢ U.S. in September 1949 which was a great help. This applied until October 1950 when Prime Minister St. Laurent freed the Canadian dollar from control and allowed it to float. It immediately rose to about 95¢ U.S.



J. Y. Murdoch

With more men available, development work was substantially increased. Both shafts were deepened by 1000 ft: the #3 shaft to 3130 ft and the west or #4 shaft to 2440 ft. These shafts were over a mile apart and were connected by a main haulage drift on the 2400 ft level, similar to that on the 1400 ft level. This expenditure amounted to \$700,000. When the mine was small, Earle Anderson relied on two competent mine captains for underground supervision. To cope with the larger operation, Stovel engaged Donald E. G. Schmitt (1915-) as Mine Superintendent. Schmitt was a mining engineer from Toronto University and had been a mine captain at the Preston East Dome Mine.

The Porcupine Mine Workers' Union was certified as Collective Bargaining Agent for the 440 Pamour employees and negotiations began for a labour agreement, but the union was taken over by the United Steelworkers Union of America which was then reorganized as the financial backer of the political CCF Party — later the NDP Party. This union's main interest appeared to be the matter of the 'check-off' of union dues.

## THE 1950s — A DIFFICULT DECADE

An average of 1658 tons of ore was treated per day in 1950. Operating costs were \$3.55 per ton and net earnings fell off from 9.73¢ per share in 1949 to 5.87¢, from which a 4¢ dividend was paid. The depletion allowance for tax reduction from mining company dividends was changed from 20% to a rate dependent on the percentage which mineral profits bore to total income. The effect of this was to deny any depletion to Pamour shareholders in 1950. The stock was trading at \$1.10 per share.

Joe Stovel left to become Assistant Manager at Noranda and was replaced as Manager by T. R. (Ted) Wearing who had been Mill Superintendent and had been with the company since 1936. Ore reserves totalled 1.43 million tons, composed of 612,000 tons from the west end averaging 0.137 oz per ton and 822,000 tons from the east end averaging 0.084 oz. With a recovery of 91.7%, the average value per ton was only \$3.55 while costs averaged \$3.29.

On October 1, 1951 Canadian mines were permitted to sell their gold on the free market but, in order to qualify for EGMA, Pamour continued to sell to the Royal Canadian Mint. During the year, the EGMA gross credit amounted to 5.27¢ per share while the operating profit was a mere half a cent per share and investment income was 2¢. A dividend of 4¢ per share was paid in December, making a total disbursement of \$4.45 million since the commencement of operations.

The U.S. exchange rate averaged 1.053 in 1951 but changed to 0.979 early in 1952 which was equivalent to a \$2.59 per oz reduction in the price of gold. This, along with the increase in wages to employees, caused the Directors, in spite of EGMA, to give some consideration to closing the mine until the price of gold in Canadian dollars improved. The mill treated 1670 tons per day during 1952. Some 39% of this came from the west end and was diluted to 0.122 oz per ton. The net earnings were 3.31¢ per share compared with 5.82¢ in 1951. The Emergency Gold Mining Assistance amounted to 6.24¢ per share while the operation itself lost 2.93¢. A 3¢ dividend was paid and Pamour shares were at 90¢ on the Exchange. The value of marketable bonds and shares held at the year end was \$2.9 million.

The operating loss continued in 1953 but a net profit of 6.60¢ per share was realized due to EGMA credits equivalent to 8.05¢ per share. In mid-1953 the Manager, T. R. Wearing, accepted the position of Superintendent of Gaspé Copper Mines' 6500 ton mill. He was succeeded by Don Schmitt who had been Pamour Mine Superintendent since 1950. Noranda's General Manager, R. V. Porritt (1901-) acted as Pamour's Consulting Engineer from 1952 to 1956. Oliver Hall, who had been a Director since 1942, died in February, 1954. It was he and Dr. Archie Bell who first interested Noranda in Pamour in 1935. John Bradfield, a Vice President of Noranda, succeeded Oliver Hall on the Board.

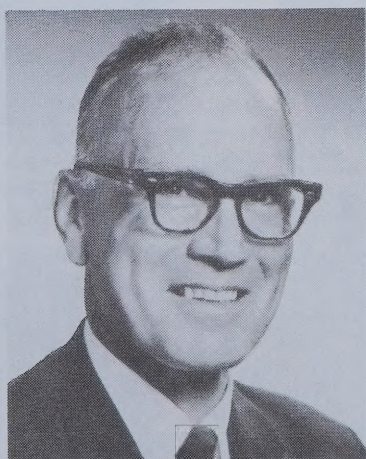


After EGMA credits of 7.83¢ per share plus income of 2.06¢ from investments, Pamour showed earnings of 3.56¢ per share in 1954 compared with 6.60¢ in 1953. Costs were held at \$3.22 per ton, the same as in 1953 and again a 3¢ dividend was paid.

Pamour participated, along with Noranda and associated companies in 1954, in the financing of Geco Mines, Limited. It was committed to purchase 25,000 shares of Geco at \$10 per share and to advance further funds estimated not to exceed \$200,000 to bring this Ontario copper-zinc mine into production. It was located north of Lake Superior and was estimated to contain 14.8 million tons averaging 1.76% copper, 3.75% zinc and 1.74 oz silver. A 1500 ft shaft was being sunk and a 3000 ton mill was under construction.

A new contract to replace that which expired in February 1953 was made with the Porcupine Mine Workers' Union in 1954. The Steelworkers Union which called a strike that lasted from early July 1953 into February 1954 closed every unionized mine in the Porcupine area and in Northwestern Quebec, with the exception of Pamour. There was no union at the Dome mine. Pamour employees were well acquainted with the merit of the issues involved and the critical position of the company at the time. It turned out that the Pamour employees appraised the situation correctly and received the same wage increase as the others. However, the strike was principally about the payroll 'check-off' of union dues, whether or not an employee belonged to the union. This was not granted.

Labour and other costs had affected all low and medium grade gold mines in Canada and resulted in the number of producing gold mines being reduced from about 150 in 1941 to 60 in 1954. Most of those that remained in operation depended on EGMA for survival. The strength of the floating Canadian dollar, which continued at about 97¢ U.S., kept the price of gold at about \$34 Cdn. The outlook was discouraging and Pamour stock continued low at 80¢ per share.



J. H. Stovel

## DIVIDENDS SUSPENDED

In spite of inflation and increased development work, Schmitt held Pamour's costs down to \$3.36 per ton in 1955. However, dilution reduced the average grade of mill heads to 0.09 oz per ton and recovery was lower at 90.8%. So, the net profit was only 0.64¢ per share after EGMA credits of 7.83¢ per share and investment income of 2.18¢. No dividend was paid and the stock fell off to a record low of 41¢ per share.

The Canadian government removed the restrictions on the holding and trading of gold. This overdue easement had no direct effect on Pamour at the time but was, of course, basically beneficial to all Canadian gold producers and citizens. Pamour made a small net profit of \$93,000 or 1.86¢ per share in 1956. This slight improvement was made in spite of the reduction in the work week from 48 to 44 hours. Operating costs continued low at \$3.42 per ton. The Mint price for gold was \$34.96 Cdn. per oz in January 1956 and \$33.56 in December.

Don Schmitt left to become Assistant Manager at Noranda in 1956 and F. E. (Pat) Patton (1913-), formerly Assistant Mine Superintendent at Noranda, succeeded him as Manager at Pamour. Dr. W. S. Paul, who had been the Medical Officer for both Pamour and Hallnor from 1938, retired in 1955. R. V. Porritt was General Manager in 1957 and 1958.

Profits in 1957, as in 1947, were disastrous. After EGMA credits of \$397,000, and \$119,000 earned from investments, the company made \$10,000. No dividends had been paid since 1954 and the stock remained at about 45¢ per share. Pamour was using up ore and suffering an operating loss, even after EGMA, to maintain its organization in expectation that the price of gold had to improve. Development work below 2000 ft at the west end of the mine was disappointing. The Three Nations vein exposed for 600 ft on the 600 ft level graded 0.11 oz per ton. A crusher was installed on the 2900 ft level to handle ore from the lower levels.

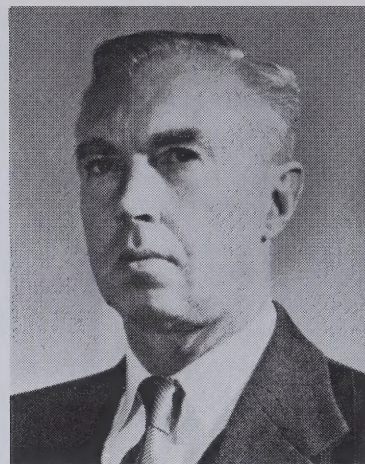
## SOME IMPROVEMENT

Production improved a little in 1958 with earnings of 5.7¢ per share and a 3¢ dividend was paid. Pamour's holding in Geco Mines Ltd. was 35,600 shares. The mine went into production in 1958 and had net earnings of \$1.73 per share. Geco repaid Pamour's \$400,000 loan in 1960 and declared two 25¢ dividends. Pamour stock moved up a little to 70¢ per share. The Federal Government increased EGMA payments by 25% pending revaluation of the price of gold, but this was not effective until 1961. Canadian and U.S. residents began to respond to the permission to trade in gold, particularly the one kilogram size bar, with two Canadian banks participating in sales of bullion and coin.



The Directors and Officers in 1958 were:

J. R. Bradfield (1899-)	— President
R. V. Porritt	— Vice President and General Manager
J. Y. Murdoch	— Retired President of Noranda
H. L. Roscoe	— Retired VP of Noranda
W. S. Row (1904-)	— Noranda Director
J. R. Timmins	— Noranda Director
L. H. Timmins (1900-)	— Noranda Director
R. G. Rudolf (1901-1972)	— Treasurer
C. H. Windeler (1900-1977)	— Secretary



C. G. McLachlan

Pat Patton, who had managed the property since September 1956, resigned to become Manager of Noranda's Kennedy Lake Mine on Vancouver Island in January 1961. He was succeeded by W. J. (Bill) Marshall (1915-) who had been Manager of the adjacent Hallnor Mine since 1952. Joe Stovel, Manager from 1948-50, succeeded Dick Porritt as General Manager from 1961 to 1965. Almost from the start Pamour, being such a low grade mine, became an excellent training ground for young mining engineers. Low costs had to be achieved or the mine would close. In addition, Porcupine was a good camp and these young men were able to associate with top flight operators at the Dome, Hollinger, McIntyre and other mines. Various mining methods and new equipment were tried out and the entire industry profited from the training and experience that developed in this important mining centre. Men such as Anderson, Stovel, Wearing, Schmitt, Patton and Marshall were a few examples of young engineers who had profited by this exposure with great benefit to themselves, to Pamour, to Noranda and the industry.

Since production started in 1936, more than 14 million tons of ore had been extracted in 24 years, although the ore reserves never exceeded 1.8 million tons at any time. At the end of 1960, Pamour had received during the 13 years commencing in 1948, some \$4.5 million under the EGMA Act. Without this assistance, the mine would have had to close down until the price of gold improved. It had enabled this low grade mine to keep its 400 employees at work and yield a production of \$29.5 million in new wealth. The mine was not deep, but aggressive development kept turning up mineable ore in widely scattered sections of this property which was over two miles long in an east-west direction along the strike of the geological formation.

In December 1960, the Canadian Government introduced fiscal measures to effectively reduce the premium on the Canadian dollar and possibly eliminate it. The average premium on the Canadian



PAMOUR — 1977



dollar was 3.12% in 1960 resulting in an average gold price of \$33.98. In 1961, there was an average discount on the Canadian dollar of 1.01% which increased gold slightly to \$35.50. This was largely responsible for the net profit of \$361,000, or 7.2¢ per share, compared with 5.9¢ in 1960. These were the best results since 1949, with record EGMA before-tax credits of \$451,000 and with investment earnings of \$226,000 partly due to Geco dividends.

Noranda's "Panorama" of May 1961 featured Pamour celebrating a Quarter Century since it poured its first gold bullion on May 28, 1936.



Blowing out candles is Pamour veteran Frank Holland, while in background (left to right) are Bill Wallenius, Fred Budreau, Sid Dorothy and Charlie Johnson.

H. L. Roscoe, who had been a Director since 1949, resigned in 1961 and was succeeded by K. C. Gray (1898-1973), a Director of Aunor Gold Mines. J. Y. Murdoch, who had been President of Pamour from 1935 to 1958, died in April 1962. His seat on the Board was filled by the Hon. D. R. Michener who resigned to become the Governor General of Canada and was succeeded by J. H. Stovel in 1964. The retired Governor General was warmly welcomed back to his seat on the Board in 1974. See graphic schedule of Directorates near the back of this booklet.

## MORE IMPROVEMENT

Earnings in 1962 were \$572,000 or 11.4¢ per share and dividends of 8¢ per share were paid. Some 62,000 ozs of gold were produced from treating 623,700 tons of ore and the average price received was \$37.41 per oz. The net profit in 1963 was almost \$700,000 from 65,000 ozs of gold. This was produced from a slightly lower tonnage mined but containing 0.113 oz per ton, which exceeded the average grade of ore reserves. The cost of mining in 1963 was \$3.72 per ton or only 5.5% more than in 1948, in spite of the great increases in the cost of labour and supplies in this 15 year period. Dividends paid in 1963 were 9¢ per share making a total of \$6.5 million paid to date out of earnings of \$10.4 million from 15.1 million tons of ore. The stock market listed Pamour at \$1.05 per share.

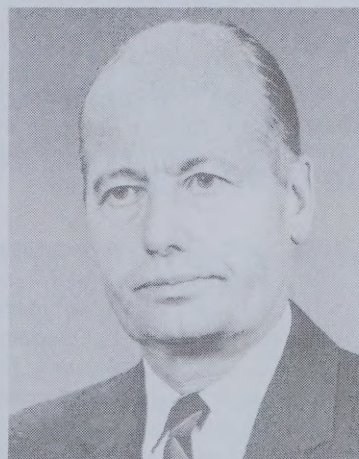
Some 250,000 shares of Anglo-Huronian Ltd. were purchased representing 17% of the shares issued. This became translated into 156,000 shares or a 6% holding in Kerr Addison Mines, Ltd. It followed the merger of Anglo-Huronian, Ltd., Bouzan Mines, Kerr-Addison Gold Mines and Prospectors Airways into the new Kerr Addison Mines Ltd.

At the thirtieth Annual Meeting in April 1964, it was pointed out that 1963 was the first time since 1948 that an operating profit was earned apart from EGMA credits or investment income. Moreover, from the inception of EGMA, the total income from investments accounted for over 80% of the dividends paid. So, the EGMA did for Pamour what it was designed to do, namely to keep this low grade gold mine and its community intact without compensating the shareholders for the depletion of their ore in the ground.

Earnings for 1964 at \$826,000 from 70,685 ozs of gold were the best since 1938. A factor was the improved grade of vein ore mined in the lava material north of the shaft. Labour turnover was 56%, partly because of the demand for construction workers at the nearby Texas Gulf base metal mine. Noranda Group mines stepped up employee training programs to help this problem.

In 1965 the Directors and Officers were:

R. V. Porritt	— President & President of Noranda
W. S. Row	— Vice President & VP of Noranda
K. C. Gray	— Toronto
P. D. P. Hamilton (1898-)	— Toronto
D. E. G. Schmitt	— VP of Mines, Noranda
J. H. Stovel	— President of Kerr Addison
J. R. Timmins	— Montreal
E. K. Cork (1932-)	— Treasurer
R. C. Ashenhurst (1918-)	— Secretary
D. E. G. Schmitt	— General Manager



T. R. Wearing



Production in 1965 was the lowest in 14 years, averaging 1600 tons per day grading 0.118 oz per ton which produced 63,600 ozs gold. An operating loss of 5.9¢ per share was offset by maximum EGMA credits of 10.8¢ and investment income of 6.9¢ per share, resulting in a net profit of 12.9¢ per share from which dividends of 12¢ were paid. Investments with a book value of \$4.4 million had a market value of about \$9 million, the principal item being shares of Noranda and Kerr Addison.

Diamond drilling between the 1200 ft and 1600 ft levels indicated the possibility of substantial tonnages of slightly better than average grade ore. President Porritt pointed out that except for its first few years, Pamour had been one of the lowest grade underground gold mines in the world but thanks to EGMA, it had shown a profit in each of its first 33 years of operation — except for 1946.

The cash cost of production exceeded the value of gold recovered by \$241,000 in 1965 and \$293,000 in 1966. Still, in these two years, Pamour injected \$5.4 million into the Canadian economy through wages and supplies and services purchased, while its gold production of \$4.85 million served to strengthen the Canadian dollar. Mill recovery was off 1% in 1967 and costs increased due to higher wages and related payroll items. EGMA credits rose to \$660,000 and earnings fell to \$440,000 from which dividends of \$500,000 were paid. The stock held at \$2.15 per share.

In an effort to reduce costs, Pamour and Hallnor Mines were both brought under the common management of W. J. Marshall. The use of scoop-trams and other mechanization underground also served to cut costs.

In 1968, Dick Porritt resigned as President but remained on the Board. He was succeeded by Don Schmitt who was also the President of Hallnor Mines and Aunor Gold Mines, Noranda's other two gold mines in the Porcupine. Edward Futterer, Vice President of Kerr Addison, joined the Pamour Board.

A. D. Dickson was Assistant General Manager in 1968 and 1969 and J. Malcolm Slack was Assistant to the General Manager in 1970. John Graham served as General Manager from 1971 to 1976 when he became Vice President. He retired in 1979 and was succeeded by Malcolm Slack who was Vice President and General Manager in 1979. Slack joined Pamour in 1970 as Assistant to Don Schmitt, the President and General Manager of Pamour, Hallnor and Aunor.

Earnings in 1968, with a record average grade of 0.124 oz per ton, amounted to 14.7¢ per share. Development of the lava formation had increased the grade of ore reserves to 0.116 oz. Dividends of 10¢ per share, or \$500,000, were continued. The 86,400 ozs produced in 1969 was the best performance since 1938 when mill heads averaged 0.197 oz per ton. Some 32,500 ozs of gold were sold at over \$39 Cdn. in the developing world free market but when the price

declined again, sales to the Ottawa Mint were resumed in order to qualify for EGMA. The net profit of \$1.1 million was only exceeded in 1938 and the stock was up a bit to \$2.75 per share.

Bill Marshall resigned as Manager in 1969 to become environmental consultant for the Noranda Group at Toronto Head Office. Over the years, management had demonstrated concern for the quality of environment at the site of these operations and Marshall was successful in establishing vegetation on the tailings storage areas. Lorne Brooks succeeded Bill Marshall as Manager of Pamour and Hallnor, and later replaced Jack Sparrow as Manager of the Aunor mine. Lorne had been Mine Superintendent at the Geco mine since 1955 and prior to that he had been at the Normetal mine in Quebec.



D. E. G. Schmitt

## THE HALLNOR ACQUISITION

Gold production fell off to about 80,000 ozs in 1970 and the floating exchange on the Canadian dollar reduced the average price to \$36.10 Cdn. So, 1970 earnings were back down to \$872,000, but dividends of \$750,000 were paid, as in 1969. The free market price for gold going up slowly to \$39 per oz started to reveal the growing demand for a hedge against inflation. This developed in spite of the continued desperate efforts of the United States Treasury and the I.M.F. to disparage gold as a monetary metal.

The Hallnor Mine, which started in 1938, had become a marginal operation as efforts to develop additional ore were unsuccessful with gold at \$36 plus EGMA. The property and physical assets were purchased by Pamour in 1971 under an agreement approved by the shareholders of both companies. Any remaining Hallnor ore would be readily trucked to the Pamour mill.

Early in 1971, the mill experienced a serious metallurgical difficulty associated with ore from a large new stope in the lava formation. During this period, tailings containing over 3000 ozs of recoverable gold were impounded for retreatment later. The problem



was rectified by installing additional agitator tanks, and gold recovery became normal in the last months of the year. This occurrence, lower grade mill heads, and loss on Canadian dollar exchange all resulted in a \$324,000 operating loss in 1971. After record EGMA credits of \$875,000 and investment income of \$449,000, the net profit was only \$125,000.

## GOLD PRICE FINALLY MOVES

The free market price for gold finally began to move. It rose from \$37.40 U.S. per oz in January to \$44 U.S. in August 1971. This was well above the Canadian Mint price of \$35.34 U.S. and the mines were able to sell their production to advantage on the open market. So, there were no applications under EGMA beyond 1971 which meant that the Act was eventually allowed to lapse. From 1948 to 1971 inclusive, total EGMA cost allowance credits amounted to the impressive figure of \$303.1 million. This had enabled the gold mining communities of Porcupine, Kirkland Lake and Red Lake to survive during those difficult years.

In May 1972 the International Monetary Fund formally revalued gold at \$38 U.S. per oz with a restless free market price well above that level. Sales in the open market averaged \$64.90 Cdn. per oz during the year.

The merging of Noranda's three gold mines with one Manager began to show the expected cost savings. There were 697 employees treating an average of 2000 tons of ore per day. The combined gold ore reserves at the end of 1972 were 2.25 million tons averaging 0.178 oz per ton. Noranda and the mining industry suffered a tragic loss in the untimely death of Edward Futterer at age 48. His seat on the Pamour Board was taken by A. W. Stollery. Lorne Brooks returned to Manitouswadge to become Manager of Geco Mines. He was temporarily succeeded by Malcolm Slack who then moved to the Noranda Head Office to assist Don Schmitt. Slack was succeeded by Leslie R. Redford (1915-) formerly the Manager at Noranda's Boss Mountain molybdenum mine in British Columbia, prior to which he had been the Manager at Kerr Addison's Coldstream Mine.

The stirring in the gold market and studies in regard to reducing production costs resulted in spreading Pamour's activities. At a special General Meeting of Shareholders in 1972, Pamour's authorized share capital was increased from 5 to 10 million shares. This enabled the purchase of the assets of Aunor Gold Mines (with the exception of \$500,000 cash) for 2 million new shares of Pamour. Dividends of \$480,000 were declared in 1972, of which \$200,000 was paid before the issued share capital was increased from 5 to 7 million shares.

The Aunor mine was acquired and operated by Pamour on November 18, 1972 and designated as Pamour No. 3 mine. The original Pamour mine was designated No. 1 mine and the Hallnor mine, purchased in 1971, was referred to as the No. 2 mine.

The Aunor Mill was to be phased out and crushed ore from No. 3 mine trucked to the Pamour Mill which was expanded, with foresight, to treat 2500 tons of ore per day.

At the Annual Meeting in April 1973, Schmitt pointed out that Pamour had the capacity to create more than \$30 million per year in new wealth from low grade mineralized rock that had no value until it was developed, mined and converted into saleable products. During 1973, the price of gold rose from \$64 per oz in January to a high of \$125 in June, to close the year at \$112. World gold production had been shrinking and fell off 6% from 1972 to 42.6 million ozs. Canada's production was also down 6% to 1.92 million ozs. The world-wide concern about inflation, together with international economic and political instability and growing distrust of paper currencies, strengthened the interest in gold in spite of the U.S. Treasury's obsession to minimize its value and ignore it as a monetary metal.



F. E. Patton

## THE SCHUMACHER DIVISION

There was a further corporate expansion in November 1973 when Pamour had the opportunity of purchasing the nearby property and facilities of the famous McIntyre Porcupine Mines Limited for \$4.5 million. The ore reserves remaining at this great mine were sufficient for about two years of gold mining together with approximately three years of copper mining. However, this acquisition appeared to have interesting centralized operating possibilities apart from those of economies of scale, diversification and services.

As mentioned at the outset, the McIntyre property was staked in 1909 by Sandy McIntyre who had staked the Tough Oakes Mine in Kirkland Lake in 1907. He made very little from either. McIntyre Porcupine Mines Ltd. was incorporated in 1911 to hold 145 acres to the north of the Hollinger property. The McIntyre boundaries were soon extended by purchase of 188 adjoining acres. A stamp mill was built in 1912 and was soon treating 2200 tons of ore per day. The Platt claim



deeded by the Ontario Government to a veteran of the Fenian Raids had not looked promising at the outset but developed into McIntyre's second most valuable area. J. P. Bickell of Toronto became involved in the sale of this claim to McIntyre. He became President and sustained the company through difficult early stages during which he kept acquiring ground until the original claims were only a small part of the property.

In 1963 McIntyre started to produce copper from a relatively low grade zone that dipped into the ground of the adjoining Coniaurum mine below the 3875 ft level. In 1972 McIntyre produced 104,000 ozs gold worth about \$6 million and 9.3 million lbs of copper worth about \$5.6 million. McIntyre, which as of November 1973 had many other important interests such as some 37% equity in Falconbridge Nickel Mines Ltd. and a major coal mine in Alberta, was in turn a 40% subsidiary of the Superior Oil Co. and Canadian Superior Oil Co. In its 60 years of operation, McIntyre had milled 33.6 million tons of ore from which it produced 10.2 million ozs of gold and earned \$736 million. From its initial dividend in 1917 to the end of 1939, McIntyre had paid continuous dividends of \$24.5 million U.S. and from 1940 through 1971 another \$91.6 million Cdn.

In 1974 the Schumacher Division of Pamour made an operating profit of \$3 million from 214,000 tons of gold ore averaging 0.2 oz per ton and 707,000 tons of copper ore containing 0.628% copper. Schmitt referred to it as one of the lowest grade underground copper mines in the world.



R. V. Porritt

## SILICOSIS

The Schumacher Division of Pamour is the oldest mine in the Porcupine group. The McIntyre organization first became concerned about silicosis in 1924. In 1926, the Ontario Mining Association petitioned the Ontario Government to make silicosis a compensable disease and annual chest X-rays of gold miners became mandatory.

The Porcupine Silicosis Committee first met at Schumacher in 1932 and two years later, the Ontario Mining Association's Technical Research Committee was established. President Bickell of McIntyre interested Dr. Banting of the Department of Medical Research, University of Toronto, who set up a research team to study the disease. In 1936, James Denny, chief metallurgist and Dr. Douglas Robson, medical officer of McIntyre discovered that small amounts of metallic aluminum almost completely inhibited the solubility of silica. This was tested on animals and after three years of research, aluminum prophylaxis was seen to be an effective, but harmless, preventative for silicosis.

Finally, after continuous research, the Technical Research Committee of the Ontario Mining Association, in 1943, recommended that aluminum powder be used to prevent silicosis in the gold mines. The McIntyre Research Foundation was formed and aluminum dust procedures were made available to any interested mine. It was instituted in the McIntyre mine change house in December 1943 and by 1945, most gold mines in Ontario were using it.

A report of the Workmen's Compensation Board of Ontario showed that of 520 Ontario miners who mined only gold and who showed early evidence of silicosis between 1927 and 1974, only 7 were found who had entered mining after the aluminum treatment was introduced in 1944. In 1959, an independent report for the Ontario Government stated: "No miner who has mined only in Ontario and has taken aluminum prophylaxis from the time he started mining had developed radiological silicosis to the end of 1956."

In 1979, public statements were made that the aluminum dust treatment was in itself harmful, but there is no evidence that this is so. The Taskforce which studied these allegations reported to Dr. Elgie, M.D., the Minister of Labour, that: "Based on all of the facts to date aluminum prophylaxis, as administered in Ontario mines, is harmless." However, some miners did not like the dust and their Union brought pressure on the Minister who requested suspension of the use of aluminum powder in all Ontario gold mines. He then referred the matter to the Federal Minister of Health and Welfare, on the premise that the Provincial Minister had no authority to permit or prevent aluminum prophylaxis under the statutes. It is assumed that the Ontario Government is thoroughly investigating the allegation before new cases of silicosis come to light.

Pamour, always concerned with safety underground, continues to provide ventilation but believes the aluminum therapy is necessary. Pamour's record of compensable accidents per million man hours per year averaged only 60% of that of the total average for all Ontario gold mines recorded since 1962. It had the second lowest injury frequency for Ontario mines during 1979.



During their terms of service, the following Pamour personnel served as Presidents of the Ontario Mining Association and of the Mines Accident Prevention Association of Ontario:

#### **Ontario Mining Association**

James Y. Murdoch	Donald E. G. Schmitt
Oliver Hall	J. H. Stovel
William S. Row	John A. Graham
H. L. Roscoe	

#### **Mines Accident Prevention Association of Ontario**

William S. Row	Lorne S. Brooks
John A. Graham	A. Arthur Adamson

Pamour personnel have also contributed their services to the Mining Association of Canada and the Canadian Institute of Mining & Metallurgy. Don Schmitt is currently President of the CIM.

#### **NEEDED – A CRYSTAL BALL**

Pamour embarked on extensive exploration in the Porcupine area to develop feed for the two 2800 ton per day mills: the No. 1 and the Schumacher mill. It also entered into a joint venture on the new Joburke property, a low grade gold prospect 70 miles west of the town of Timmins (see map at the end). This sparked the reactivation of Mining Corporation as a mine development contracting company. The latter's history dated back to 1914 and the silver mines in Cobalt. In 1963, it was merged with Noranda and resuscitated ten years later by Pamour taking a 25% participation.



W. J. Marshall

The net earnings for 1973 were \$2.85 million, or 40.7¢ per share, on the 7 million shares outstanding. The company then held 214,000 shares of Noranda and 400,000 shares of Kerr Addison Mines Limited. Kenneth C. Gray, who had been a valuable Pamour Director since 1961, died in 1973. J. H. Stovel retired at the Annual Meeting in April 1974 and The Rt. Hon. Roland Michener, Past Governor General of Canada, returned to the Board.

Net earnings in 1974, with the first full year of Schumacher production, reached an unprecedented \$4.5 million, or 64¢ per share, after an \$80,000 tax reduction due to prior years' losses. This resulted from a production of 143,200 ozs gold at \$159 Cdn. per oz plus 4080 tons of copper and 59,000 ozs silver. The price of copper ranged from a record high of \$1.52 per lb in April to 63¢ in December and to 53¢ in January 1975. The world price for gold had risen from \$116 U.S. per oz in January to \$197 U.S. in December. The U.S. Treasury sought to bring the price down by announcing its intention to sell 2 million ozs of gold by auction. Then too the expected interest of Americans in being allowed to purchase gold fell far below expectations. The price declined to \$170 per oz. Silver was also becoming a sort of inflation hedge at a level of about \$4 U.S. per oz.

Pamour's income and production taxes for 1974 amounted to \$2.7 million before the prior year adjustment. So, the year's taxes were somewhat higher than the \$2.45 million paid in dividends to shareholders who had financed the risk. The annual payroll for some 1300 Pamour employees, which was 21% above 1973, was \$11.6 million from which income tax deductions were \$2.25 million. A miner's pay, apart from bonuses, was \$4.05 per hour, about the highest in Canada for a 40 hour week.

#### **TWO DISASTROUS YEARS: 1975-76**

A serious net loss of \$2.1 million in 1975 resulted from a 21% increase in costs, a 12% reduction in tonnage milled and a 13% drop in mill heads due principally to dilution. No dividends were paid. The price of gold fell to \$125 in December 1975. Soviet gold had been used to pay for Western grain. The International Monetary Fund sold 1.25 million ozs in 1975 at \$165.50 per oz and reported that it would sell 25 million ozs to aid developing countries. The U.S. Treasury confirmed its plan to hold periodic auctions of gold. Any long term prospect of a return to a gold standard and economic sanity was completely in limbo. The London price of copper was 51¢ U.S. at the end of 1975.

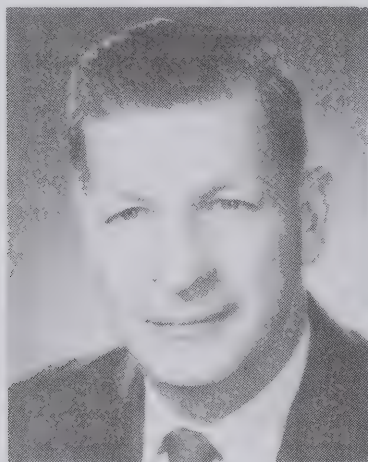
The Pamour Directors were worried about the volatile situation, but the price of Pamour Stock held fairly steady at \$3.60 per share. Outside exploration was suspended, no new capital projects were undertaken and purchases were severely curtailed. After considerable testing, cost saving alterations were made to combine the gold and copper sections of the Schumacher Mill into one circuit. Securities held had a book value of \$7.7 million and a market value of \$14 million. The company also held 11,000 acres of ground in Canada's most productive gold mining area to date.

The year 1975 was bad and unsettling, but 1976 was disastrous with a loss of \$6.18 million, or 88¢ per share. Borrowings outstanding amounted to \$10.4 million and there was a working capital deficiency of \$4.3 million. The price of gold fell from \$140 per oz in January to \$103 in August, but recovered to \$134 in



December. The International Monetary Fund sold 780,000 ozs at six week intervals commencing in June 1976. This confirmed the determination of the U.S. Treasury and the I.M.F. to restrain gold. However, the demands for gold in jewellery, industrial applications and as an inflationary hedge continued and the confused U.S. government policy became less influential.

The Aunor mine (Pamour No. 3) became a salvage operation. By the end of 1976, the number of Pamour employees was reduced 30% to 856, productivity improved and in December, a small operating profit was realized. However, the shareholders were advised that unless there was continuing improvement, the mines would all be closed. The stock was selling at \$2.25 per share.



L. S. Brooks

## OPTIMISM RETURNS

The Ross mine, located 57 miles east of Timmins, and the original but inactive Hollinger property were purchased for \$600,000 cash plus royalties of \$1 per ton on open pit 'Timmins' ore and 50¢ per ton on Ross underground ore. These royalties were based on a price of \$130 for gold. The Ross mine had 377 employees. It is located near the community of Ramore and started production in 1936. It had a 300 ton mill and in the period 1936-68 it treated 3.48 million tons and produced some 610,000 ozs of gold. It was shut down for salvage by Pamour and Ross ore was then trucked to the Schumacher mill for treatment. The big Hollinger mine had produced some 19,315,000 ozs of gold from 65.9 million tons of ore during its operating life from 1911 to 1968. The average value per ton was \$6.32 and it paid dividends totalling \$182 million, or \$37 per share.

Pamour was in the black in 1977 with earnings of \$128,000: its first profit in three years. No dividend was paid and none had been paid since 1974. The price of gold recovered from \$129 in January to \$166 at the year end. The International Monetary Fund's sales of 10.4 million ozs were readily absorbed by a

market which saw the need for a hedge against long term, excessive inflation. A Pamour record of 164,000 ozs was produced. The Pamour and Schumacher mills treated a total of 5470 tons of ore per day at a cost of \$14.38 per ton and \$148 per oz of gold produced. Fortunately, the Canadian dollar moved from a slight premium in 1976 to an average discount of 6.3% in 1977. Short term borrowings of \$8.8 million covered a deficiency in working capital of \$4.8 million in January, which was reduced to \$3.9 million at the year end. It looked as if the company's struggle to survive had a fair chance and the price of the shares went up to almost \$5.

At the Annual Meeting in April 1978, President Schmitt said: "We are still in the business of producing gold and I think there never was a better time to do so." W. S. Row and P. D. P. Hamilton resigned from the Board after 21 years and 13 years of service respectively.

The Directors and Officers were:

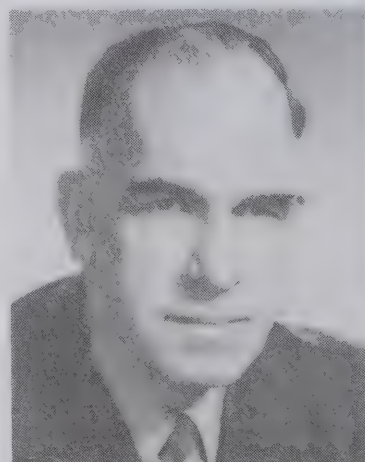
D. E. G. Schmitt	— President
J. A. Graham	— Vice President
J. M. Slack	— General Manager
J. Conrad Lavigne	— Timmins
The Right Hon.	
Roland Michener	— Toronto
J. J. Rankin	— Toronto
A. W. Stollery	— Toronto
E. K. Cork	— Treasurer
B. H. Grose	— Secretary

A. A. Adamson was the Manager of the combined operations.

There is a graphic record of Pamour Directors at the back of this publication.

## GOLD MOVES UP

After three very lean and trying years, 1978 produced a profit of \$5.2 million, or 74¢ per share, and the working capital deficiency was reduced to \$1.16 million at the year end. One dividend of 10¢ per share (\$700,000) was paid, the first in four years. The price



J. A. Graham





J. M. Slack

of gold rose from \$166 U.S. per oz in January 1978 to \$243 in October and ended the year at \$224 U.S. In desperation, the U.S. Treasury auctioned off 300,000 ozs in monthly sales beginning in May and rising to 750,000 ozs in December. In addition, the I.M.F. continued to auction off 470,000 ozs per month. The market absorbed it all. Then too, the Canadian dollar during the year averaged 87¢ U.S. compared with 93.7¢ in 1977. Silver moved up with gold from an average of \$4.82 per oz in 1977 to \$6 in 1978. Pamour's cost per oz of gold produced was \$185 Cdn. Pamour shares were up to \$7 on the Toronto Stock Exchange. The value of its marketable securities was \$16 million.

Exploration work was restored and the number of employees was up to 1005. The Noranda Group's Modular Training system was utilized to train and upgrade the skills of regular and new employees in safe working methods, and a new Employees' Deferred Profit Sharing Plan was introduced. Past service pension credits were upgraded for former McIntyre employees at a cost of \$200,000. Arthur Adamson, previously Manager at McIntyre, signed the 1978 Report to the Directors as Assistant General Manager and Warren Holmes was appointed Mines Manager.



L. R. Redford

## FURTHER EXPANSION

Ores from 7 mines, including some open pit production from the Romfield Property, near the Aunor (No. 3) mine, and low grade development material from the Porcupine Peninsular prospect at Night Hawk Lake were treated in the two mills to achieve a productivity of 9.1 tons per man-shift. A total of 2 million tons, or 5480 tons per day, was milled in 1978 to produce 161,370 ozs gold and 18,765 tons of copper in concentrate. Year-end ore reserves amounted to 2.5 million tons. The Schumacher reserves were only 109,000 tons averaging 0.196 oz. gold and 560,000 tons containing 0.036% copper.

The restoration of working capital enabled Schmitt and his staff to step up exploration and mine development. They acquired additional properties in the Porcupine and Matachewan districts increasing their mineral rights to some 14,000 acres. As mentioned, they participated in re-appraising the Joburke property, also the Canadian Arrow open pit prospect about 35 miles east of Pamour. The possibilities of still higher gold prices caused them to participate with Noranda in the old Camlaren mine at Gordon Lake, 55 miles northeast of Yellowknife in the Northwest Territories. It was a small gold deposit discovered by The Mining Corporation of Canada back in 1937.

Pamour and Noranda jointly went even farther afield in 1979 when they acquired from Park City Ventures (owned by Anaconda and Asarco) the Ontario mine at Park City near Salt Lake City, Utah at an estimated cost of some \$12 million. Proven reserves were estimated at 507,000 tons averaging 8.4% zinc, 5.9% lead, 4.7 ozs silver and 0.02 oz. gold, plus 750,000 probable tons of similar grade. These old mine workings would require considerable development work to re-establish production with its 750 ton per day concentrator.

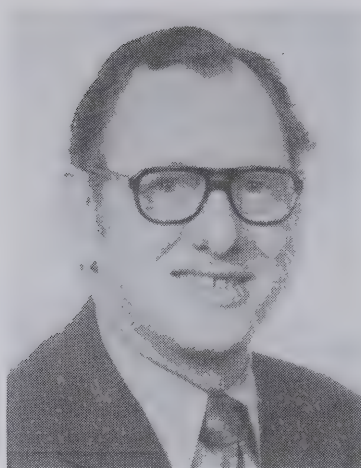
After reducing 1979 income taxes by \$1.9 million for prior years' losses, Pamour's earnings for the year were a whopping record \$9.5 million, from which were paid dividends of \$2.1 million or 30¢ per share. This brought the total of dividends paid to date to \$18.4 million. The tonnage milled was down from 2 to 1.7 million tons and gold production down from 161,000 to 137,000 ozs. Some 1700 tons of copper were produced in concentrate. However, the gross value of production increased to \$58.3 million from \$40.6 million. The price of gold had risen from about \$220 per oz in early September to \$524 at the year end and went on to a high of \$843 in January 1980. The increased demand for a hedge against mounting inflation was spurred on by OPEC oil prices.

John M. Gordon (1929-), Noranda's Vice President Mines, Central Canada and John C. White (1933-), Noranda's Vice President Mines were added to the Pamour Board, as the number of Directors was increased from 7 to 9 at the Annual Meeting in April 1980.

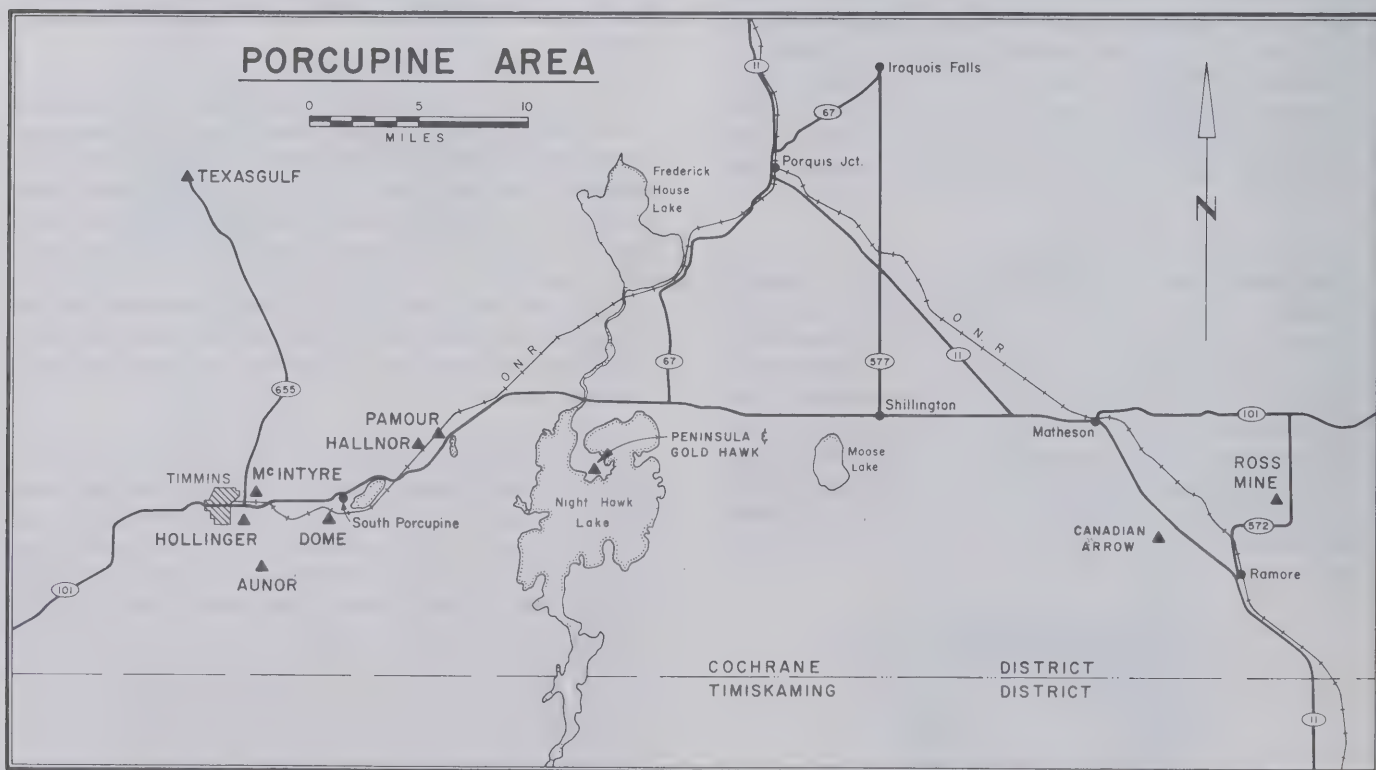


Pamour, in 1980, is an aggressive, growing and ongoing mining enterprise. After a good start in 1938, it got into serious trouble in 1947 after the War years. Faced with many gold mine closures, the Federal Government came to the rescue of the mining communities with its Emergency Gold Mining Assistance Act in June 1948. It was designed to keep such low grade gold mines in operation until the price of the precious metal was adjusted. This adjustment was long overdue but before a ground swell could develop in regard to gold, it became necessary to amend and extend the EGMA Act several times. The only variation in the price of gold arose from the exchange rate on Canadian currency.

During the 24 years from 1948 to 1971 that EGMA applied, Pamour received a total of \$10,223,482 in cost allowance credits from the government. In this period, Pamour met increasingly competitive wage rates and paid dividends of \$7,300,000 as the price of gold rose slowly and painfully from \$25 to \$60 U.S. Now, in 1980, with gold well over \$600 per oz, Pamour's stock got up to about \$25 per share from a low of 41¢ in 1955 and it is a new ball game.



A. A. Adamson





# PAMOUR STATISTICS

Year	tons milled	Gold		EGMA	Earnings	Dividends
		ozs produced	per oz Cdn. \$			
1936	138,200	58,500	\$ 35.02		\$ 157,000	—
1937	276,200	113,000	34.99		625,000	—
1938	515,200	94,000	35.20		1,397,000	\$ 600,000
1939	585,400	70,500	36.30		675,000	600,000
1940	576,000	70,800	38.68		728,000	600,000
1941	560,000	66,870	38.68		518,000	600,000
1942	575,000	60,800	38.68		538,000	400,000
1943	525,500	54,100	38.68		622,500	250,000
1944	470,500	41,700	38.68		372,000	250,000
1945	418,000	38,800	38.59		263,000	250,000
1946	387,000	35,400	35.09		209,400	150,000
1947	300,000	27,300	35.00		(24,500)	—
1948	412,000	38,000	35.00	\$ 179,833	16,600	—
1949	584,000	57,000	38.59	291,869	486,000	350,000
1950	605,000	58,000	38.12	214,545	293,000	200,000
1951	582,000	55,600	36.85	263,405	291,000	200,000
1952	611,000	56,400	34.26	312,063	166,000	150,000
1953	627,400	58,400	34.42	402,528	330,000	150,000
1954	637,000	55,800	34.06	391,654	178,000	150,000
1955	636,000	52,200	34.52	391,596	32,000	—
1956	619,000	50,500	34.44	407,176	93,000	—
1957	628,000	51,300	33.56	396,804	10,000	—
1958	647,000	60,300	33.97	422,435	285,000	150,000
1959	637,400	61,600	33.57	421,754	280,000	200,000
1960	646,000	62,700	33.94	408,649	294,000	200,000
1961	648,000	59,800	35.44	451,153	361,000	200,000
1962	633,000	62,000	37.41	450,525	572,000	400,000
1963	628,000	65,000	37.75	422,599	695,000	450,000
1964	602,000	71,000	37.75	366,979	826,000	600,000
1965	584,500	63,600	37.73	539,895	643,000	600,000
1966	612,500	64,500	37.71	600,944	632,000	550,000
1967	610,000	64,000	37.75	659,485	442,000	500,000
1968	624,000	71,400	37.70	617,859	736,000	500,000
1969	622,000	86,400	37.66	255,274	1,101,000	750,000
1970	634,000	79,800	36.10	479,458	872,000	750,000
1971	690,000	85,000	35.64	875,000	125,000	250,000
1972	692,000	89,900	64.90		766,000	480,000
1973	877,000	126,600	97.32		2,847,000	1,750,000
1974	1,780,000	143,200	159.26		4,496,000	2,450,000
1975	1,913,000	149,600	161.09		(2,096,000)	—
1976	1,892,000	155,800	124.84		(6,179,000)	—
1977	1,997,000	164,200	157.10		128,000	—
1978	2,000,000	161,000	220.73		5,199,000	700,000
1979	1,712,000	137,000	325.29		9,553,000	2,100,000
* 1980	871,000	58,000	685.40		5,661,000	2,100,000
<hr/>						
TOTALS:	33,820,800	3,407,370		\$10,223,482	\$36,215,000	\$20,580,000

\* first 6 months.



# AUNOR GOLD MINES LIMITED

The history of Aunor begins with the Mitchell brothers: John A. (1876-1941) and William S. (1873-1953) who grew up in Belfast, Maine. Railroad building was the exciting development in North America when they were young. John went to Nova Scotia in 1904 to work on a new rail line extension. About this time, the Province of Ontario was building the Temiskaming & Northern Ontario Railway northward from North Bay to open up the Lake Temiskaming clay belt and connect with the Canadian National Transcontinental line at Cochrane. The construction of this 252 mile railroad led to the discovery of native silver ore at Cobalt in 1903. The Ontario Government railway was later extended 186 miles to seawater on James Bay in 1932.

In 1906, John Mitchell joined the influx of prospectors, miners and entrepreneurs attracted by the spectacular silver deposits. William followed him to Cobalt. John took 106 photos of the Cobalt camp and a few in Porcupine. His brother wrote notes to accompany the pictures — a most interesting collection which was discovered carefully preserved in the mine office vault at Aunor in 1959. This series has been photographed on film with a sound track and a copy is retained in the Noranda archives.

William financed the 'Townsite' mining project in Cobalt. This was done in London in 1907 and the shares listed on the London Exchange. They did the same with the Casey mine which was located north of New Liskeard. In 1908, they were among the first to stake silver claims at Elk Lake and at Gowganda. In 1910, John staked some claims in the Porcupine camp. In January 1914, he acquired a group of four claims in Deloro Township consisting of 139 acres. Three were located together southwest of Macdonald Lake and about 2 miles south of the Hollinger mine. The fourth was located just east of two "Schumacher" claims and west of the Buffalo-Ankerite property (see map at back). They did assessment work on the claims and decided to await developments.



J. A. Mitchell

## AUGITE PORCUPINE MINES LTD.

In 1934 the price of gold was increased from \$20.67 U.S. per oz to \$35. Then, in 1936, any new Canadian mine was exempted from paying income tax for its first three years of production. In the light of these incentives, the Mitchells incorporated Augite Porcupine Mines Limited in 1936 to hold their four claims in Deloro Township. Their Consultants were the well-known firm of James & Buffam of Toronto. In April 1938, Dr. James advised them to drill four holes totalling 2700 ft from surface along the southern boundary of the single claim lying just west of the Buffalo-Ankerite property. With interesting information from these holes, Augite then leased the two "Schumacher" claims, comprising 58.5 acres, from the Montreal River International Silver Mines Limited, an Ontario company incorporated in 1907. These had been purchased, prior to the Augite claims, in April 1913 for \$146 by Frederick W. Schumacher of Columbus, Ohio. Augite paid \$100,000 for a 99 year lease on these two claims with the rental being 10% of the annual net profit from production from these two claims plus that from the four Augite claims. Mitchell then proceeded to sink a three compartment shaft to 1000 ft on the easterly "Schumacher" claim.

The Augite shares were trading at about 30¢ per share. In 1939, Augite acquired the "Archie Fuller" claim of 47.75 acres lying just south of the easterly "Schumacher" claim. It was purchased from Arbutus Porcupine Mines Limited for \$300,000 payable from gold produced from the claim itself — a much simpler deal. Aunor Gold Mines Limited was then incorporated on May 4, 1939 to take over the 7 claims owned, optioned or leased.

## FOUR NORANDA CLAIMS

Augite had also been negotiating with Noranda Mines and on May 18, 1939 entered into an agreement to acquire four claims to the southwest aggregating 115 acres. These had been acquired from the Crown by G. F. Gund and sold to Noranda in 1922; some diamond drilling was done on them in 1935. Aunor was capitalized at 2,000,000 shares of \$1 par value and the Augite shareholders received one share of Aunor for each three shares held.

Noranda received 673,334 shares, 33.6% of Aunor for its four claims and bought 350,000 Aunor shares for \$1.50 each. The balance of the treasury shares were sold to others under options at \$1.50 and \$1.80 per share. The proceeds of these sales were deemed sufficient to complete the development of the mine and build a 300 ton mill.

The original Aunor Directors in 1939 were:

John A. Mitchell	— President
James Y. Murdoch (1890-1962)	— Vice President
W. S. Mitchell	— New Medford, Mass.
A. L. Ellsworth (1883-1951)	— Toronto
J. R. Bradfield (1899-)	— Secretary



The Mine Manager was Stanley S. Saxton (1904-1949). He was a graduate of the Haileybury School of Mines, who had worked from 1923 to 1925 for L. K. Fletcher who was then in charge of exploration for Noranda. Bruce Magill was Mine Superintendent and James & Buffam were represented by Marsh Cooper.

The shaft, located about 1000 ft from the southern boundary of the property, had stations cut on the 625, the 705, the 875 and the 1000 ft levels from which 25,000 ft of diamond drilling was done. The veins in the lower levels showed values similar to those above with somewhat wider widths to a depth of 1400 ft. The ore zone dipped north about 70 degrees and varied in width from almost zero to 250 ft.

The hanging wall of the east-west ore zone on the 1000 ft level was intersected 345 ft south of the shaft. It passed through the northwest corner of the Fuller claim and through the two Noranda claims. It would reach the Montreal River and southern Augite claims at greater depth. The gold-bearing quartz veins themselves dipped at an angle of 55 degrees. They produced a 'ladder-like' structure with ore at all horizons. This structure extended east into the Buffalo-Ankerite property and west into the Delnite ground with a stretch of almost a mile across Aunor territory. The grade of the ore at the 1000 ft level was 0.59 oz uncut or 0.33 oz cut across a width of 4.2 ft.



W. S. Mitchell

## MILL PRODUCTION AND THE WAR

The Directors and Consultant W. F. James were satisfied that the extent of this exploration work and the accumulated stockpile of development ore, which had an average value of about \$11 per ton, warranted proceeding with a 300 ton mill. Its design was drawn up at Noranda by C. G. McLachlan and staff. Construction was somewhat delayed due to the War, but the Federal Government approved proceeding with the project due to the wartime need for gold production and U.S. currency. In addition to the mine and mill facilities, a few houses for key personnel were built nearby.

The mill went into production in January 1940 and the first gold bar was poured on February 6th. The shaft when sunk to 1550 ft in 1940, encountered talc chlorite schist which, as expected, embraced both sides of the ore zone and became a continuing problem. At the end of 1940, the ore reserves were 340,000 tons averaging 0.27 oz gold per ton and the mill treated an average of 363 tons of 0.29 oz ore per day. This resulted in a satisfactory net profit of \$478,000. A Group Life Insurance and Sickness & Accident Insurance Plan was established with the bulk of the cost paid by Aunor.

The earnings in 1941 were \$417,000 and an initial dividend of \$80,000 or 4¢ per share was paid in March, with three more 4¢ dividends paid later during the year. Under the Income War Tax Act, Aunor was exempt from income tax until mid-1943, but there were war-time Excess Profits taxes levied on the basis of 75% of the net premium from the sale of gold in U.S. funds. This plus Provincial income tax amounted to \$110,000. Aunor stock was trading at about \$2 per share and Noranda held some 1.1 million shares or 55%. Ore reserves at the end of 1941 amounted to 515,000 tons.

## JOHN MITCHELL

James Murdoch's report for 1941 stated:

"Your Company sustained a most serious loss in the sudden passing of your President and our Colleague, Mr. John A. Mitchell, on November 9th. To John Mitchell must, in very large measure, be attributed the successful development of your property. His vision, patience and determination over a period of some thirty years, culminated in the commencement of these operations."

The Aunor Directors were:

J. Y. Murdoch	— President
W. S. Mitchell	— Vice President
A. L. Ellsworth	— Noranda Director
N. C. Urquhart (1893-1966)	— Noranda Director
J. R. Bradfield	— Secretary

The net profit in 1942 was \$554,000 or 27.7¢ per share from which was paid \$320,000 in four 4¢ dividends, as in 1941. After milling 173,300 tons, the ore reserves at the end of 1942 remained at 530,000 tons. Development work on the 1350 and 1500 ft levels showed faulting and folding at the west end, but the ore zone was as wide as it was above. The shaft was deepened to 2070 ft and drilling indicated that the ore persisted at depth with slightly more dip.

Earnings in 1943 were \$595,000, or 29.73¢ per share, from which dividends of \$360,000 or 18¢ were paid. The three year tax exemption expired in July and taxes in 1943 increased to \$164,000. The year-end ore reserves amounted to 588,000 tons with an average grade of 0.32 oz.



## AUNOR WAR HONOUR ROLL

### Employees Killed in Action:

George Atkinson  
Howard Conn  
R. L. Garvie

### Prisoners-of-War:

Ken Donaldson  
James Lago

### Other Employees Who Served Overseas

Albert Alpine	Farmer Neable
Leo Campbell	William O'Keefe
A. Crockett	Arthur Orr
Nelson Emard	Jack Pearce
James Gibbons	A. Perrier
Mac Glendinning	D. Pirie
Jack Hamilton	Russell Small
William Howie	Ernest Stack
Allen King	James Steele
A. Lajeunesse	Michael Svos
Rheo Lariviere	Anthony Sweet
Ken Leahy	Syd Thib
R. J. Legendre	Paul Tourangeau
M. MacInnis	W. Whitehead
Gordon McLean	Frank Woon
John Mira	Leonard Yuskow
Jack Navard	M Zolob



Dr. W. F. James

In 1944, a cooperative employee medical plan was put into effect. There were 1700 shareholders, 80% of whom were resident in Canada. Aunor shares were trading at \$2.40. Operating costs were \$6.94 per ton compared with \$5.87 in 1943 and earnings were 26.36¢ per share from which dividends of 20¢ were paid. Labour continued very scarce and development work was slow and expensive due to the need for concrete support in the soft chloritized schist on both sides of the ore zone. Also, more ore was mined from cut and fill stopes which required backfilling. The 1375 ft level west drift exposed 1490 ft of ore over a width of 13 ft averaging 0.41 oz per ton. The 1500 ft level west drift exposed 1052 ft of ore with a grade of 0.33 oz.

Mill heads during 1945 averaged 0.4 oz. Year-end ore reserves totalled 602,000 tons averaging 0.34 oz. Below the 1250 ft level, the presence of talc in the ore zone reduced mill production, and thickening capacity had to be increased. Earnings were \$582,000 in 1945 from 55,800 ozs of gold and dividends of \$400,000 were paid, leaving some \$1.37 million in surplus.

In 1946, the Canadian dollar rose from 90¢ U.S. to parity and the price of gold was down 10% to \$35 Cdn. Wage rates were increased 10¢ per hour and Aunor's net earnings fell from 29¢ to 23.5¢ per share. The final payment was made against the \$300,000 purchase price for the Fuller claim. Only a very small tonnage was extracted from the Augite claims and no rental was payable to Montreal River International Silver Mines. In 1947, 27,000 tons of ore were extracted from the Montreal River claims but still no profit resulted and no rental was payable. Aunor's tonnage and gold production were up in 1947 and 1948, but parity of exchange kept earnings down. However, dividend payments continued at \$400,000.

## AUNOR AND EGMA

With rising costs and the Canadian dollar continuing at par, the Federal Government came to the rescue of 87 gold mines, including Aunor and Pamour, as previously explained. In 1948, the first year of EGMA credits, Aunor received assistance of \$100,000 before taxes. A 7¢ per hour cost-of-living bonus was paid to employees commencing January 1, 1948.

Stopping operations were carried out between the 500 and 2125 ft levels with 480 tons milled per day. Some 9900 ft of drilling was done from the 3250 ft level of the Buffalo-Ankerite Mine at the east end of the property but did not intersect any commercial ore. However, at the west end of the property, some 230 ft of drilling from the 2625 ft level of the Delnite mine cut a vein averaging 0.26 oz across 14 ft. Ore reserves at the end of 1948 amounted to 680,000 tons with an average grade of 0.348 oz.

A tragic boating accident occurred on May 23, 1949 on Lake Temagami in which Stan Saxton was drowned. He had been the Manager at Augite from the start and had done an excellent job of developing Aunor and bringing it into production. He was succeeded by Robert E. Findlay (1905-1978), a graduate of McGill University, who had been the Assistant Mine Superintendent of the Horne Mine at Noranda.

Record earnings of \$626,000, or 31.3¢ per share, were achieved in 1949, the 10th year of operations, from 64,200 ozs gold production. EGMA credits of almost \$100,000, as in 1948, were helpful and in the fourth quarter the Canadian dollar fell to 90.5¢ U.S. Dividends of \$400,000 were paid for the sixth consecutive year.





S. S. Saxton

## THE SECOND DECADE BEGINS WELL

On September 30, 1950, the Canadian dollar was freed from the Foreign Exchange Control which had been in effect since September 1939. It rose from 91¢ to 95¢ U.S. during the fourth quarter, reducing the gold price by \$2 per oz. However, earnings for the year 1950 reached an all time high of \$648,000, or 34.2¢ per share, and record dividends of \$460,000 were paid. Investment income amounted to \$67,000 partly from dividends on 3000 shares of Noranda and 5000 shares of Kerr Addison.

A. L. Ellsworth, a Director since the inception of Aunor, died in November 1950. He was succeeded by K. C. Gray (1898-1973) of Kirkland Lake, the Manager of Sylvanite Gold Mines in that camp and of its subsidiary, Delnite Mines Ltd., Aunor's neighbour. Aunor stock was trading at \$3.25 per share in 1950 compared with \$5.50 in 1946.

Shaft sinking was terminated at a depth of 3080 ft and drifting started on the 2900 ft level. Ore reserves amounted to 714,000 tons of 0.36 grade after milling 177,000 tons at an average rate of 486 tons per day. The lease agreement with Montreal River International Silver Mines was amended retroactively to January 1, 1948 and a reserve rental of \$6,700 provided in 1951. The west drift on the 2900 ft level reached within 1950 ft from the Delnite boundary in 1952. The drift on the 2500 ft level from Delnite was stopped 550 ft east of the boundary. Drilling from this drift indicated continuity of ore between the 2125 and 2900 ft levels.

Aunor sold some gold in the free market in 1952 and sacrificed EGMA credits. However, the world price fell off and Aunor went back to sales to the Royal Canadian Mint. This exercise resulted in lower earnings, and dividends were reduced to \$360,000. The stock was selling at \$3 per share.

During 1951, the premium on the U.S. dollar was 5¼% compared with a discount of 2% in 1952. Early in 1952, the free gold market price was about \$38.40 U.S. per oz and Aunor netted \$1 per oz over the Mint price plus EGMA. The free market price fell off in the

Spring and Aunor didn't fare as well as if it had continued to sell to the Mint and get EGMA. So in 1953, the production was sold to the Mint. The Government amended the EGMA Act to further assist low grade gold mines to survive the rising costs of labour and supplies and the effect of the stronger Canadian dollar.

W. S. Mitchell suffered a severe stroke in the Fall of 1952 and was unable to continue to act as Vice President. He died in 1953, at the age of eighty, 12 years after his younger brother John. W. S. Row, Manager of Kerr-Addison Gold Mines Ltd., was added to the Aunor Board and John Bradfield became Vice President.

## SEVEN LEAN YEARS

In 1953 only 55,000 ozs were produced. Net earnings fell off to under \$300,000 and dividends were reduced to \$320,000. This resulted from a strike which closed the mine from mid-October to January 27, 1954. The strike was called by the United Steelworkers of America in order to gain the 'check-off' of union dues, which failed. A new agreement provided for a wage increase of 4.3% for the 400 employees.

The London Gold Market reopened in March 1954 after a lapse of 15 years and stayed below \$35 U.S. for the rest of the year. Free world gold production was up and the USSR sold over one million ozs in the free market. The Canadian Government which took no stand in regard to gold, other than the position of the misguided U.S. Treasury, allowed the export of fine gold rather than debased gold as previously. However, the only newly mined gold being exported came as a by-product of base metal mines. All the gold mines were shipping to the Mint at Ottawa in order to qualify for EGMA. The drift on the 2900 ft level was extended west to the Delnite boundary in 1954. Some 140 ft of drift through the talc chlorite schist had to be protected by a concrete tunnel. A main service raise was started from the 2900 ft to the 2125 ft level. Earnings were only slightly better than in 1953. During 1954, the average assistance received by all the gold mines under EGMA amounted to \$4.30 per oz which was exactly the figure that applied to Aunor. An amendment of the EGMA Act was designed to reduce such credits in 1955 by \$2 per oz.

Aunor, along with Pamour and other Noranda Group companies, participated in the financing of Geco Mines Limited and undertook to purchase 25,000 shares of Geco at \$10 per share and to advance further funds, estimated not to exceed \$200,000. After taking up some 6700 shares, Aunor's surplus account at the end of 1954 amounted to over \$2 million, in the form of investments which had market values of \$1.23 per share.



## THE DELNITE CONNECTION

Some 180,000 tons were milled in 1955, making a total to date of 2.6 million tons. Gold production for the year was 70,000 ozs making a total of 906,450 ozs to date. Development at depth was arranged by asking Delnite to drift into the Aunor ore zone on their 4375 and 3500 ft levels. The lower drift extended 785 ft into Aunor ground, but no ore was encountered. For the first time, sufficient information was available to include some 100,000 tons of ore below the 2125 ft level in the calculation of ore reserves which, at the end of 1955, totalled 774,000 tons averaging 0.371 oz per ton. Aunor shares ranged from \$2 to \$2.45 on the Toronto Exchange.

Earnings in 1956 were only \$286,000 compared with \$405,000 in 1955, principally due to the lower grade of ore treated which was closer to that of the ore reserves. It was also due to higher costs of \$10.88 per ton resulting from the reduction in the work week from 48 to 44 hours and to some ore being hoisted from the 2900 ft level. There was little change in the London price for gold, except for a brief rally at the time of the Suez crisis. Dividends of \$320,000 were maintained by drawing on surplus which brought the total dividends declared to date close to \$6 million, equivalent to \$3.05 per share.

The year 1957 saw a little improvement and the continuing dividends of \$320,000 per year were earned. Some 194,800 tons were milled but ore reserves increased to 843,000 tons of which some 256,000 tons of new ore were located between the 2125 and 2900 ft levels. The results from the Delnite 3500 ft level drift into Aunor ground for a length of 359 ft were somewhat disappointing. Relatively simple changes in the mill raised its capacity to over 650 tons per day although during 1957, the average tonnage treated per day was 534.

The erratic premium on Canadian funds reduced the average price for gold to \$33.56 in 1957, the lowest value since 1934 when the U.S. price of \$35 was established.

During 1958, the mining was done between the 1375 and 2900 ft levels. All known ore above the 1375 ft horizon had been extracted. About 236,000 tons were milled at an average rate of 647 tons per day and 81,900 ozs of gold were recovered — a record to date. Ore reserves at the end of 1958 amounted to 976,000 tons averaging 0.37 oz per ton. After milling 265,000 tons in 1959, an average of 727 tons per day, 86,000 ozs of gold were produced and proven ore reserves were increased to 1.09 million tons averaging 0.36 oz per ton.



J. R. Bradfield

James Y. Murdoch, the President since John Mitchell's demise in 1941, resigned in favour of John Bradfield but remained on the Board. William Row became the Vice President.

Work on the 3500 ft level Delnite extension looked much better and indicated six ore shoots in Aunor ground with an average width of 9.7 ft for a length of 1550 ft containing 0.363 oz per ton. Continuity above or below the level had not been determined nor had plans been made yet about gaining access to this ore below the 29th level. Diamond drilling indicated that conditions on the 3250 ft level might be similar to those at 3500 ft and Delnite was asked to extend their 4975 ft level into Aunor ground.



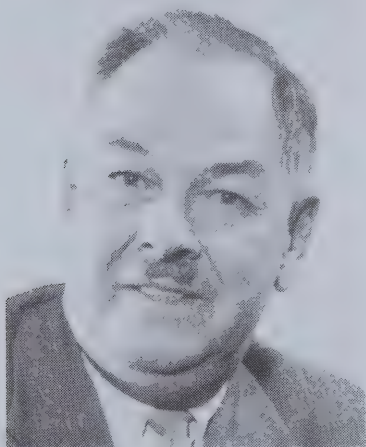
AUNOR — 1972



Most of the improvement in earnings in 1960 resulted from the sale of investments and dividend receipts. The drop from the 5% premium on the Canadian dollar in December 1960 was encouraging. However, Ottawa appealed to the provinces and large cities to forego borrowing in the U.S.A. to strengthen the dollar! The exodus of gold from the U.S. Treasury continued and European central banks were happy to convert their dollar holdings into gold. It enabled them to redeem dollars at the undepreciated value which those dollars were worth at the time of the Breton Woods Agreement in 1944. There was a growing lack of confidence everywhere in managed currencies. However, this did not yet point to any solid prospect of revaluation for gold.

The Canadian dollar continued to drop and 1961 offered encouragement to all Canadian export industries. Aunor responded by increasing its dividends, which had remained at \$320,000 for 8 years, to \$380,000. Revenue and production were up, but so were the costs of mining at greater depths, so earnings held much the same.

In April 1961, W. V. Moot, the President of Delnite Mines Limited, visited the Toronto office to work out an agreement for the use of the Delnite shaft by Aunor. Under this agreement, development work got under way at the west end of the property on the 3250, 3875 and 4975 ft levels from the Delnite workings. Investment income was up to \$109,000 principally due to dividends on 33,000 shares of Geco Mines. EGMA credits in 1961 amounted to \$413,000.



R. E. Findlay

### THE 'RESTLESS' DOLLAR PEGGED

The floating Canadian dollar fell to a 7½% discount and was pegged at that level on May 2, 1962. This increased the price of gold to an average of \$37.41 and justified increasing the dividends to \$400,000.

Aunor miners, by agreement, working from the Delnite No. 3 shaft drifted 350 ft. into Aunor ground on the 3100 ft level, also 190 ft on the 3250 ft level. Diamond drilling from these drifts confirmed ore conditions similar to those above the 3900 ft level, but how to best get at this ore was a problem.

Most of the 430 Aunor employees lived in the town of Timmins which at its peak had a population of 29,000. The city fathers made the most of its Golden Jubilee in 1962 and boasted that it was built on gold. However, of the ten remaining Porcupine gold mines, only two appeared to have much ore left. The big Texas Gulf base metal orebody in Kidd Township just north of the town was not discovered until April 1964. Meanwhile, the EGMA continued to keep Timmins and the Porcupine camp alive and well. Pamour, Aunor and Hallnor concluded three year contracts with the United Steelworkers Union, including wage increases of 13¢ over the three years plus improved vacations and other benefits.

In 1963, the mill tonnage averaged 760 per day with heads of 0.338 oz and record to date production of 89,400 ozs. The year-end ore reserves were 1.19 million tons averaging 0.35 oz per ton. Record earnings of \$669,000 were achieved but in view of contemplated expenditures for underground development, the dividends were held at \$400,000. The stock was trading at \$3.80 per share.

### DEEPER MINING WITH THE DELNITE SHAFTS

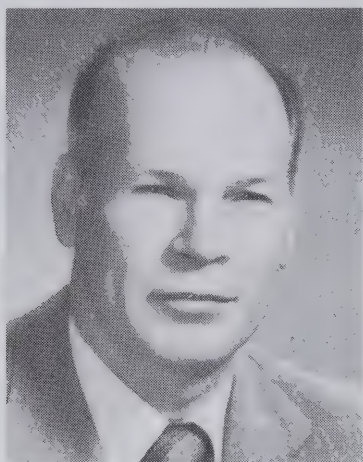
In March 1963, an agreement was made with Delnite to purchase its two shafts for \$380,000 for hoisting Aunor development ore to the 2900 ft level where it was trammed to the Aunor shaft for hoisting to the mill. Delnite expected to run out of ore in 1964. Since their No. 3 shaft extended to a depth of 5200 ft, this could be of great benefit as difficult ground conditions at Aunor prejudiced further shaft sinking below 3000 ft.

Aunor's 25th Annual Meeting was held in April 1964 with President Bradfield the only survivor of the original Board of Directors. The mine had yielded 4.58 million tons of ore and produced 1.63 million ozs of gold worth \$56 million of which \$29 million had gone for wages and \$17 million for supplies. Some \$28 million remained in the business and dividends of \$8.8 million had been paid, equivalent to \$4.40 per share. At the year end, Aunor had almost \$2.2 million in working capital plus investments with a market value of about the same amount. Some \$62,000 had been credited to Surplus from the sale of shares of Mining Corporation. Aunor, being a subsidiary of Noranda, could not add to its holding of Noranda shares which were exchanged for shares of Mining Corporation. The same thing happened in 1964 when a substantial profit was realized from the sale of Geco shares under the Noranda-Geco merger.

Operating and administrative costs in 1963 were \$3,173,000 to produce 89,400 ozs of gold, or \$35.40 per oz before EGMA and taxes against a realized price of \$37.75. At the Annual Meeting in 1964, President Bradfield resigned and was succeeded by Richard V. Porritt, the new President of Noranda, who had been an Aunor Director since 1962. The Delnite mine closed in August 1964 after 27 years' operations. As arranged, Aunor men & materials then went underground via the



Delnite No. 2 shaft while the ore was hoisted up the Aunor shaft to the mill. Drift connections were made between the Delnite shaft and the Aunor mining levels above the 2900 ft level to provide access.



J. M. Gordon

### CHANGES PENDING IN THE PORCUPINE

The few remaining mines in the Porcupine were still short of experienced workmen due to the Big Texas Gulf base metal mine project. Only 409 men were employed at Aunor during 1965. This prevented stope development work planned in the ore zone between the 29th and 35th levels. None of this ore could be included in reserves which at the year end amounted to 798,000 tons averaging 0.31 oz.

Robert Findlay retired as Manager after 17 years of competent service. He was succeeded by John M. Gordon, formerly the Manager at the Hallnor Mine. The average number of employees in 1966 was 396 and the tonnage milled per day was 697 with an average grade of 0.32 oz.

Donald E. G. Schmitt replaced John Bradfield on the Board and succeeded J. H. Stovel as General Manager. Norman C. Urquhart, who had been a very valuable Aunor Director since 1942, died in September 1966. He was succeeded on the Board by A. W. Stollery. John Gordon resigned as Manager to become Mine Superintendent of Noranda's new Central Canada Potash mine in Saskatchewan; he was succeeded by John G. Sparrow, who had been the Aunor Mine Superintendent.

The mine backfilling system, using classified mill tailings, was modified. Ore reserves at the end of 1966 included 184,000 tons below the 2900 ft level and the prospects at this depth appeared favourable. However, during 1966, Aunor spent some \$3.2 million to produce \$3.08 million worth of gold; a clear demonstration of the continued need for EGMA which reached a record to date of \$770,000 in 1967. The net profit for the year did not quite match the \$400,000 paid out in dividends. A premature profit of \$567,000 was added to Surplus resulting from the sale of Texas Gulf Sulphur shares.

### HOW ABOUT GOLD?

With no increase in monetary gold reserves of the central banks, it was seen that the demand for gold was considerably greater than the new production. In response to the U.S. Treasury suggestion, the central banks stopped buying or selling gold, except amongst themselves. It was hoped that the International Monetary Fund scheme of creating new units of international currency called "Special Drawing Rights" would offset the decline in gold reserves and provide adequate international liquidity. France opposed this and insisted that the only solution was to increase the price of gold. Unfortunately, they got no support from Canada which still backed the obsession of the U.S. Treasury.

Aunor's production costs continued to increase from \$39.60 per oz in 1966 to \$42.75 in 1967 which was close to the maximum eligible under the EGMA Act. In 1968, Richard Porritt resigned as President after four years of competent service, but remained on the Board. He was succeeded by Donald Schmitt as President and General Manager. Aunor achieved its maximum production of 93,000 ozs of gold in 1968, but only its eighth best year of earnings. Income from investments amounted to \$328,000.

Unexpected faulting and rock pressures in deep stopes had a serious effect on earnings in 1969. Also, the number of employees fell off to 367 in spite of the fact that two mines in the Porcupine shut down. The cost of hydro-electric power increased 11% on January 1st. The mill treated an average of 714 tons per day and produced 73,000 ozs of gold. With 1969 earnings of only \$113,000, the dividends paid were reduced to \$300,000 compared to \$400,000 per year for the previous seven years.

Jack Sparrow resigned as Manager in 1970 to be Manager of the new Langmuir nickel mine in Hoyle Township. In an effort to reduce costs, Lorne Brooks, the Manager of Pamour and Hallnor, took over the management of Aunor as well. There were only 359 people on the payroll. There was continued dilution in the grade of ore sent to the mill. It averaged 0.295 oz, about the same as in 1969, while the average grade of ore reserves stood at 0.33 oz. Some 90% of the 262,000 tons of ore treated in the mill was hoisted up the No. 3 (Delnite) shaft.

### GOLD STILL CLAIMS TO BE A MONETARY METAL

The Canadian dollar was freed from the fixed rate of 92.5¢ U.S. on June 1, 1970 and allowed to float. This reduced the average price received for gold to \$36.10. Net earnings for the year were \$185,000 and the dividends paid were reduced to \$80,000. The stock was trading at \$2.25 per share. In May 1971, Lorne Brooks resigned as Manager to become Manager at the Geco mine. He was succeeded by J. Malcolm Slack and John Graham was appointed General Manager.



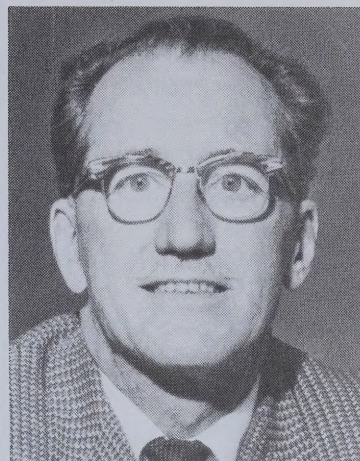
The exchange reduced the gold price in 1971 to \$35.64 and in spite of maximum EGMA credits of \$790,000, Aunor's earnings fell to a record low of \$81,000. This was chiefly due to difficulty with low grade ore in the fourth quarter, resulting in a net operating loss of \$221,000 for that period. At the year end there were only 287 employees. In spite of the low earnings, the Directors optimistically declared dividends of \$380,000. However, a moderate but persistent rise in the price of gold on the free market was developing. The world market price rose from \$37.40 U.S. per oz in January to \$44 U.S. in August due to devaluation of the U.S. dollar, establishing gold at \$43.60 U.S. by the year end. The role of gold as an international monetary metal was being confirmed in spite of the U.S. Treasury's objection.

At the Annual Meeting in April 1972, President Schmitt stated that all the ore would be hoisted to surface up the No.2 shaft. This would reduce underground haulage and eliminate the use of the Aunor No. 1 shaft and crushing the ore on surface. Moreover, the crushed ore might be trucked to the larger Pamour or Schumacher mills to effect economy of scale.

The increase in the world price for gold to an average of \$51.73 per oz in the first half of 1972 meant that no more EGMA credits would be paid and this well-conceived 'emergency' measure that had helped Aunor for 24 years could finally be terminated. As of September 30, 1972, the value of Aunor's net current assets, including marketable investments at market values, amounted to \$6.16 million or \$3.08 per share and the stock was selling at \$2.95. Aunor's proven ore reserves stood at 835,000 tons averaging 0.31 oz. When the gold market took off, South Africa withheld up to one-third of its production from sales and although USSR offerings increased, the price reached \$70 U.S. per oz in August and closed the year at \$65. The future for gold looked bright.

A general meeting of the shareholders held on November 17, 1972 confirmed a special resolution of the Board authorizing the sale of the property and assets of Aunor, except for \$500,000 cash, to Pamour for 2 million shares of Pamour. The market price of Pamour shares was \$2.90 and the dollar equivalent of the distribution, including the final Aunor dividend, was \$3.15 per Aunor share. So, the Aunor shareholders received 25¢ and one share of Pamour for each share of Aunor held. Pamour stock closed at \$3 per share.

The accompanying statement of Aunor Statistics shows that during the 32 years of operations, some 6.8 million tons of ore were milled to produce 2.23 million ozs of gold to earn about \$14 million, from which dividends of \$11.2 million were distributed.



J. G. Sparrow

### PAMOUR TODAY

Pamour's real assets have been its people. They are always changing but their spirit, competence and dedication remain. Balance Sheet investments at cost amount to \$7.5 million compared with market value of \$23 million. Fixed assets amount to some \$19 million at historic values. This does not, reflect anything for proven, probable or possible ore reserves. Their values, of course, vary with the prices for gold, copper and silver. As prices have increased, some previously non-commercial underground material now becomes profitable despite greatly inflated costs. With gold approaching \$700, there are possibilities of substantial quantities of pay ore still available in the Porcupine camp. Pamour, backed by Noranda, has the means and the ability to take advantage of this changing situation.

W. J. Marshall, who assisted with this history of the Pamour enterprise, had during his thirty-two years' service as a mining engineer and as a mine manager taken great interest in the subject of environmental control. It was therefore appropriate that he was chosen in 1969 to become Environmental Control Coordinator of the Noranda group of companies. Having reached retirement age this year, he continues to act as Consultant in this field which has, particularly during the period of his regime, become a matter of prime importance to everyone. As a matter of interest in this connection, the annual report of Noranda Mines for 1979 states that capital expenditures for emission and effluent control exceeded \$148 million since 1971.

It should be noted that there may be comments in this in-house chronicle that do not reflect the attitudes and opinions of the Pamour Officers and Directors.

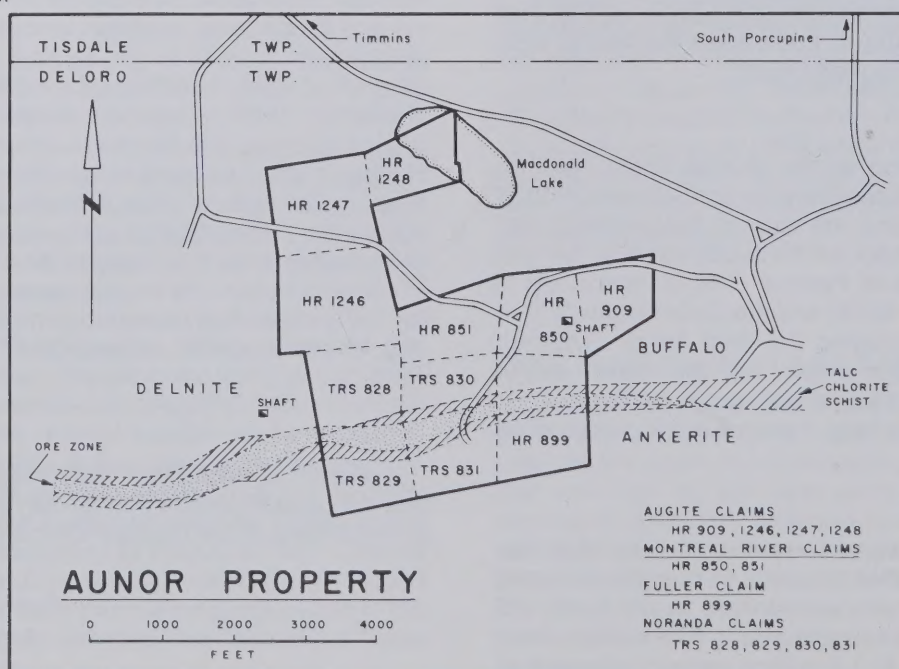
Published by Noranda  
Archives Committee  
September 1980



## AUNOR STATISTICS

Year	tons milled	Gold		EGMA	Earnings	Dividends
		ozs produced	per oz Cdn. \$			
1940	127,100	34,300	\$38.68		478,000	\$ —
1941	159,000	41,700	38.68		417,500	320,000
1942	173,000	49,800	38.68		554,000	320,000
1943	159,000	48,500	38.68		595,000	360,000
1944	137,000	48,000	38.68		527,000	400,000
1945	143,000	55,800	38.59		582,000	400,000
1946	168,000	56,800	35.09		471,000	400,000
1947	172,000	58,250	35.00		489,000	400,000
1948	176,000	57,200	35.00	\$ 100,641	414,000	400,000
1949	176,000	64,200	38.59	99,617	626,000	400,000
1950	177,000	65,400	38.12	45,343	684,000	460,000
1951	176,000	65,500	36.85	122,096	489,000	440,000
1952	179,000	74,000	34.26	—	403,000	360,000
1953	140,000	55,000	34.42	201,512	299,000	320,000
1954	167,000	62,000	34.06	268,307	322,000	320,000
1955	180,000	70,000	34.52	124,158	405,000	320,000
1956	181,000	66,000	34.44	176,278	286,000	320,000
1957	195,000	70,000	33.56	278,446	325,000	320,000
1958	236,000	82,000	33.97	342,190	381,000	320,000
1959	265,000	86,000	33.57	315,020	377,000	320,000
1960	265,000	84,000	33.94	374,610	469,000	320,000
1961	279,000	87,000	35.44	413,341	472,000	380,000
1962	274,000	82,000	37.41	432,890	479,000	400,000
1963	277,000	89,000	37.75	486,362	669,000	400,000
1964	272,000	83,000	37.75	635,597	482,000	400,000
1965	266,000	79,000	37.73	639,693	441,000	400,000
1966	254,000	79,000	37.71	634,048	434,000	400,000
1967	241,000	81,000	37.75	770,216	396,000	400,000
1968	269,000	93,000	37.70	614,109	506,000	400,000
1969	261,000	73,000	37.66	710,800	113,000	300,000
1970	262,000	74,000	36.10	765,300	185,000	80,000
1971	277,000	77,000	35.64	790,100	81,000	380,000
* 1972	196,000	45,000	64.90	84,990	112,000	80,000
TOTALS:	6,879,100	2,236,450		\$9,425,664	\$13,963,500	\$11,240,000

\* first 9 months.





# DIRECTORS

	1 9 3 4	1 9 4 0	1 9 5 0	1 9 6 0	1 9 7 0	1 9 8 0
<b>PAMOUR</b>						
G. H. Rainville	P					
Messmore Kendall						
Wm. Meen						
August D'Amour						
Paul Gelin						
R. M. Macaulay						
Ayme Lafontaine						
J. Y. Murdoch	P					
J. R. Timmins						
Ernest Hibbert						
T. N. Hay						
Hon. J. E. Perrault						
L. N. Timmins						
Oliver Hall						
H. L. Roscoe						
J. R. Bradfield				P	P	
R. V. Porritt						
W. S. Row						
K. C. Gray						
Rt. Hon. D. R. Michener						
P. D. P. Hamilton						
J. H. Stovel						
D. E. G. Schmitt						P
J. O. Hinds						
Edward Futterer						
A. W. Stollery						
J. J. Rankin						
J. A. Graham						
J. M. Slack						
J. C. Lavigne						
J. M. Gordon						
J. C. White						

## AUNOR

J. A. Mitchell	P	P				
J. Y. Murdoch						
A. L. Ellsworth						
W. S. Mitchell				P		
J. R. Bradfield						
N. C. Urquhart						
K. C. Gray						
W. S. Row						
R. V. Porritt				P		
D. E. G. Schmitt					P	
A. W. Stollery						

P = President



# PERSONNEL

	Manager	Mine Supt.	Chief Engineer	Mill Supt.	Mech.-Elect.	Chief Acct'nt.
<b>PAMOUR</b>						
1935	Rupert Macaulay	Earle Anderson	Doug Stevenson	—	Art Bromley	Sid Cooke
1936	"	"	"	Ted Wearing	"	"
1939	Earle Anderson	*Dan McLelland *Louie Aro	"	"	"	"
1949	Joe Stovel	"	—	"	—	Ken Esdale
1950	"	Don Schmitt	—	"	—	"
1951	"	"	—	"	Vern Andrew	"
1952	Ted Wearing	"	—	—	"	"
1953	Don Schmitt	Lee Partridge	—	Cliff Barnett	"	Hugh Harvey
1955	"	Yorke Williamson	Bob Williamson	"	"	"
1957	Pat Patton	"		Ford Berry	"	"
1959	"	"		Bob Duval	"	"
1961	Bill Marshall	"		"	"	"
1965	"	Jack Sparrow		Jim Schnarr	"	"
1966	"	Bart Thomson		"	"	"
1967	"	"		Dan Dever	"	"
1969	"	John Kalmet		Carl Eggert	"	"
1970	Lorne Brooks	"		"	Ken Musgrave	"
1971	Malcolm Slack	"		"	"	"
1972	Les Redford	Warren Holmes		"	"	"
1973	"	"		Fred Budreau	Al Ozols	Doug Towers
1975	Art Adamson	Murray Cawley		"	"	"
1976	"	"		Eric Johnson	"	"
1977	Dave Wilson	Wilmer Fera		"	"	"
1979	Warren Holmes	"	Charles Gryba	"	Ray Pigeon	"
		* Mine Captains				

## AUNOR

1939	Stan Saxton	Bruce Megill	Lorne Jowsey	Duncan Falconer	Bert Alpine	Claire Bride
1941	"	"	"	"	"	Harold Shantz
1942	"	Harry Garvie	A. G. Horning	"	Nick Nicholson	"
1944	"	Tom Bulloch	"	Bill Harris	"	"
1945	"	"	"	"	Bert Alpine	"
1946	"	"	Mac Glendinning	"	"	"
1947	"	Harold Paul	"	"	"	"
1949	Bob Findlay	"	"	"	"	"
1950	"	"	"	"	Nick Nicholson	"
1952	"	Mac Glendinning	"	"	"	"
1953	"	"	Les Redford	"	"	"
1954	"	Les Redford	Pat Hamilton	"	"	"
1956	"	"	"	"	Ed Lavallee	"
1957	"	"	"	"	Ed Reed	"
1959	"	Denis Bridger	"	"	"	"
1960	"	"	Eric Blunden	"	"	"
1961	"	Neil Blayney	"	"	"	"
1963	"	"	John Harvey	"	"	"
1965	John Gordon	"	Warren Holmes	"	Herman Bruckman	"
1966	"	"	"	"	George Marshall	"
1967	Jack Sparrow	Peter Gollledge	"	"	"	Bill Howie
1968	"	"	Doug Walli	Geo. MacDonald	"	"
1969	"	Steve Bizyk	"	Geo. Rodger	"	"
1970	Lorne Brooks	John Kalmet	—	Carl Eggert	Ken Musgrave	"
1971	Malcolm Slack	"	—	"	"	"
1972	Les Redford	Warren Holmes	—	"	"	"